



## Belfast City Council

**Report to:** Health and Environmental Services Committee

**Subject:** Review of 'Towards Zero Waste' Action Plan 2012-2015

**Date:** 4th March, 2015

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<b>1</b>	<b>Relevant Background Information</b>
1.1	At the Health and Environmental Services Committee meeting on 16 Apr 2012, Members approved the “Towards Zero Waste” Action (ZAP) Plan 2012-2015. This plan established a series of actions to improve Belfast’s recycling rate and target dates by which these would be achieved in the period from 2012 to 2015, which provided the Service with an annual programme of work towards reaching a 50% recycling rate and a 35% landfill diversion rate by 2020 as required by European law.
1.2	This report provides a review of the ZAP plan and outlines the proposed next steps for the Council. A copy of the ZAP plan is attached at Appendix 1.

<b>2</b>	<b>Key Issues</b>
	<b><u>Overall Performance</u></b>
2.1	The delivery of the projects within the ZAP plan has resulted in an increase in the recycling rate from 32% in 2011/2012 to around 44% in 2014/15 (year end projected figure), a total increase of 12%. This is short of the original target of 50% which was always going to be challenging, not least due to the DOE taking significant action on illegal waste operations which impacted detrimentally upon waste operations across NI, and as the Service adopted a clearer value for money focus when considering how the Council’s waste could best be managed. In recent years, this resulted in a balanced approach for managing the residual waste being used in order to improve both the recycling rate and the amount of waste diverted from landfill, with increases in gate fee prices. Additionally, after six years of declining waste arisings, in 2013/2014 an increase of 4% in the amount of household waste generated was experienced and projections for 2014/2015 suggest that this increase is not a one-off event.
2.2	Looking at Belfast’s local performance, in the absence of fully validated figures for 2014/2015 and assuming that the current actions deliver as projected, the Council will have increased its recycling rate by 12% over the duration of the ZAP plan, against a regional increase for NI of around 3%.
2.3	This will mean that the Council will have experienced an average recycling rate increase of

4% per annum between 2012-2015 while the ZAP plan was being delivered, double the previous annual increase. In other words, it created a paradigm shift for Belfast.

### **Benchmark**

2.4 Due to the population, household numbers, housing stock and social deprivation, Belfast has no obvious regional comparator. To compensate for this, Waste Management benchmarks against similar post-industrial cities elsewhere in the UK and implementing the ZAP plan resulted in significant improvement in Belfast's ranking against these comparators (see Appendix 2).

2.5 In 2010/2011, Belfast was fifth in the benchmark group but by 2013/2014, the city had overtaken its comparators and was ranked first. Consequently, the Service is considering revisiting its benchmarking cluster to identify a new grouping of best-in-class cities within both the UK and Europe against which it can compare performance and learn from.

### **Projects**

2.6 A number of projects within the ZAP plan have played a fundamental role in improving the city's recycling rate.

#### 2.6.1 *Improvement of Recycling Collection Services for Households*

In 2013/2014, a new contract was awarded to Bryson Recycling Ltd to introduce a kerbside dry recyclables and food waste collection scheme to 55,000 households, mainly in the inner city area. These households had previously received a single box dry recycling kerbside collection service but the new scheme introduced a wider range of materials, greater capacity (two kerbside boxes), and a new food waste collection system. In tandem, the residual waste collection frequency switched from weekly to fortnightly. The scheme was communicated to residents through a doorstep canvassing campaign and considerable work was done to introduce individual solutions for apartment complexes.

The result of this new service has been encouraging with the last year producing 7,200 tonnes, compared with 3,100 tonnes under the previous scheme. This initiative has resulted in an uplift in the recycling rate for Belfast of around 4% per annum. The project won the award for Excellence in Recycling and Waste Management at an annual awards ceremony in London.

A kerbside glass recycling scheme was initially timetabled for implementation in 2013/2014 however, following a procurement exercise by arc21, the bids submitted were deemed unaffordable. This resulted in the Council introducing an interim, kerbside glass collection to 22,000 households in four locations within the bin dry recyclables area of the city. At the same time, the Council commenced its own procurement exercise for this service which is due to complete imminently.

#### 2.6.2 *Improve Recycling Opportunities at Recycling Centres*

The Household Recycling Centres (HRCs) provide around one quarter of the recycling tonnage for Belfast and provide householders the opportunity to dispose of large bulky household items or waste which cannot be accepted through their kerbside collections.

There is still however a significant amount of residual waste being disposed of at the sites. Following a pilot, the Service entered into a contract with Wastebeater Recycling Ltd to treat the materials from the residual waste skips. This company extracts the recyclables and the remaining waste is processed into a fuel for use in cement kilns, with a small amount of unprocessable residual going to landfill. This new contract contributed around 4% per annum to the recycling rate.

The Service is continually considering opportunities to introduce new materials at the HRCs

and the latest addition has been hard plastics. This is traditionally a difficult material to deal with given the limited number of local processors. The Service is also considering how a mattress recovery option could be introduced at the HRCs. Increasing the range of materials at the sites however means that operating practices need to be continuously reviewed as capacity is restricted due to space/container constraints and licensing.

The ZAP plan included the development of a new HRC at Springvale Industrial Estate. An economic appraisal was completed and submitted for consideration in the Council's Investment Plan. The project has, however, been delayed. It should also be noted that it is proposed within the Departmental Plan 2015/16 for the Service to conduct a review of HRC and Civic Amenity site provision throughout the city.

2.6.3 *Use Treatment Facilities to Recover Waste Which Could Have Been Recycled from Black Bins*

Members will be aware that the Council has a legal obligation to progressively divert increasing waste tonnages in order to comply with the Northern Ireland Landfill Allowance Scheme (NILAS). This legislation transposes the EU Landfill Directive by annually reducing the amount of biodegradable waste going to landfill. Failure to meet NILAS could result in financial penalties of £150 per tonne over and above this reducing threshold limit.

Arc21 is procuring strategic residual waste treatment facilities which will assist its constituent councils in meeting their NILAS requirements; but this has taken longer than initially projected. As a contingency, and to ensure Belfast met NILAS, an interim contract was awarded to Natural World Products (NWP) to treat a proportion of the Council's residual waste so that it is diverted from landfill. NWP receives the waste at one of its treatment facilities, extracts the easily recoverable recyclables and prepares the remaining waste as a Refuse Derived Fuel (RDF) for export to EU Energy-from-Waste (EfW) facilities.

This contract has enabled the Council to meet its NILAS obligations in 2013/14 without having recourse to the arc21 transfer of allowances protocol, and a similar outcome is anticipated for 2014/15. Whilst this contract is focused on NILAS, it has still contributed an additional 2% per annum to the Council's recycling rate.

2.6.4 *Develop New Recycling Campaigns & Community Based Recycling Initiatives*

The Service's Education and Promotions section has proven to be a key component in engaging and communicating recycling messages directly with householders and other members of the public. The Section's Behavioural Change Plan 2012-15, has been designed to complement the ZAP plan actions and targets.

Resource Advisors (RAs) have supported delivery of the ZAP plan through several doorstep campaigns, ranging from campaigns targeting low participation in specific wards, up to city-wide campaigns such as the introduction of the inner city kerbside scheme in 2013/14. In a recent doorstep canvassing exercise aimed at boosting the level of performance in lower performing inner city areas, the average yield per household increased by an average of 8% in seven out of the ten areas targeted, and in the other three there were slight reductions which could be accounted for by the nature of the occupancy of the households; these were primarily student areas. In the control group the level of growth was -1% which indicates that the RAs can have a direct, positive influence on participation and recycling yield. Details of this Section's work, along with images from the current communications campaign, are appended to this report (see Appendix 3).

More recently, this team has been involved in providing information about bin collections and general Local Government Reform (LGR) related messages to householders transferring to Belfast.

To reflect one of the primary recycling drivers, the new communications campaign has focused on the savings which can be made if residents recycle, and how these can be re-invested in other Council services to the benefit of the local community. This campaign has appeared in City Matters and on graphic panels on the sides of the Refuse Collection Vehicles (RCVs).

In 2013/2014, in line with the commitment in the ZAP plan to introduce community-based recycling initiatives, the Council launched the “Zero Waste Community Grant” scheme. The aim of this initiative was to encourage greater community engagement in communicating the benefits of increased recycling, diverting waste from landfill and in delivering projects which could positively contribute to increasing Belfast’s recycling rate.

Over three funding rounds, just over £100,000 was allocated to 13 community projects including; recycling events, community education campaigns and bespoke collection schemes targeting items such as hand tools. This has enabled the recycling message to be heard in areas where, historically, engagement has been poorer than anticipated. It is intended that the scheme will be assessed in 2015/16 to quantify the contribution it made to the reduce, re-use, recycle message.

2.6.5 *Increase the Amount of Recyclables Collected from Existing Waste Collections*

An analysis of the various sources and waste streams resulted in the award of a contract to Wastebeater Recycling Ltd to treat the bulky household, parks general and litter bin wastes rather than sending these materials to landfill. This has resulted in a recycling rate uplift of around 0.5% per annum.

While delivering the ZAP plan, it became apparent that the proposed HRC for Springvale would not be delivered within the set timeframe. The Service examined the various waste streams and identified an opportunity to compensate for the loss of tonnage anticipated from this site by targeting street sweepings which were previously de-watered and disposed of to landfill. Following a procurement exercise a contract was awarded to Irish Waste to de-water and recycle these. This innovative project created a niche market as there is only one other company within NI carrying out this type of work, and it is not located in greater Belfast. In 2014/15, the recycling of street sweeps will contribute around 3% per annum to the Council’s recycling rate.

2.6.6 *Collect Recyclables from Cityscape*

The Service works with colleagues from other Departments to ensure that, where feasible, recycling collections are included in the city’s events programme. This has worked well, for example, with the Continental Market consistently achieving recycling rates over 80%. Other one-off events serviced by Cleansing Services have provided reasonable recycling tonnages (e.g. Giro d’Italia).

One issue highlighted during the behavioural change research is the need for the Council to demonstrate its own commitment to improving waste and resource management through leading by example. The Service is liaising with colleagues to introduce internal recycling systems and, to date, a number of sites have had solutions rolled out, including (i) City Hall (ii) St. George’s Market and (iii) the Cecil Ward Building. This project will continue into 2015/16.

2.6.7 *Give More Space to Recycle in the Blue Bin & “Slim” the Black Bins.*

In the first year of the ZAP plan, the Service introduced an initiative whereby residents with a 140 litre recyclables bin could upgrade to a larger 240 litre bin. Ultimately, this project involved around 18,000 households and provided increased capacity for householders to use for recycling. It is anticipated that, following several attempts, arc21 will seek to procure a new dry recyclables contract which can accept a wider range of materials in the near future. Inclusion of these materials is projected to uplift the recycling rate by 0.5% per annum.

	<p>Research shows that restricting the bin space available for residual waste generally results in a compensatory increase in recycling. As a further incentive to encourage recycling, at the Committee agreed to adopt the 180 litre bin as the standard size for residual waste in Aug 2013. This policy was introduced in Jan 2014 after the new kerbside box scheme was implemented, as this signalled that all households in Belfast now had additional recycling capacity through their kerbside recycling schemes.</p> <p>In adopting this approach, the Council was one of the first to introduce such a scheme locally, demonstrating its ongoing leadership and commitment to improving waste and resource management in NI.</p>
2.7	<p><u>Outcomes</u></p>
2.7.1	<p><i>Cleaner, Greener City</i></p>
	<p>The recent improvement in the recycling rate supports Belfast in its strategic objective to create a cleaner, greener place for people to live, work in and visit. It also enhances the reputation of the city as the Council has recently won a number of awards for its recycling success such as:</p> <ul style="list-style-type: none"> <li>▪ the Award for Excellence in Recycling &amp; Waste Management (May 2014) and</li> <li>▪ the Sustainable Ireland, Council award for Excellence in Waste Management (Sept. 2014).</li> </ul>
2.7.2	<p><i>Economy</i></p>
	<p>A report published by the Green Alliance in Feb 2014 highlights the economic advantages associated with landfill diversion. It identified that between 5-10 jobs are created/supported for every thousand tonnes of material recycled, compared with 0.1 jobs for the same amount of waste sent to landfill.</p> <p>Applying the above to Belfast's waste streams would indicate that up to 520 jobs are directly or indirectly supported through the Council's recycling initiatives as around 52,000 tonnes is presently recycled, and a further 33,000 tonnes is recovered. This has resulted in 58% of the city's waste being diverted from landfill.</p> <p>In recent years, there has been much discussion within the waste industry on the Circular Economy which involves keeping products and resources in use as long as possible through recovery, re-use, remanufacturing and recycling. In addition to protecting the environment, this offers substantial economic benefits which include greater economic stability through increased resource security, and new business and employment opportunities from an expanding sector.</p> <p>Latest figures from WRAP and the Green Alliance indicate that by 2030, on the basis of the current development path, the Circular Economy could create over 54,000 net jobs in the UK. On a pro-rata basis, this represents around 1,500 local job opportunities; the council is pursuing the development of a Circular Economy on several fronts, such as the Renew project and development of the North Foreshore. This will also underpin any work the Service's proposes on developing a Materials Strategy, aimed at shifting perception of waste into that of being a resource.</p>
2.7.3	<p><i>Environment</i></p>
	<p>The diversion of waste from landfill is of considerable importance as landfill gases are one of the primary sources of methane which, as a greenhouse gas, is over twenty times more potent than carbon dioxide.</p> <p>The EU Landfill Directive and NILAS legislate to reduce the amount of biodegradable waste</p>

	disposed of to landfill. Through the NILAS contract with NWP, the Council has met its NILAS obligations in 2013/14 and is confident of achieving a similar result in 2014/15. Annually, this contract treats around 47,000 tonnes of residual waste and diverts approximately 30,000 tonnes from landfill. In terms of measurable environmental benefit, the diversion of the tonnage from landfill to recycling has the equivalent effect of removing carbon dioxide pollution from just over 13,000 cars.
2.7.4	<p><i>Reputation</i></p> <p>One of the functions of Waste Management is compliance with waste and environmental legislation. Achieving NILAS and improving Belfast's recycling rate has been well received by the media, and various stakeholders such as arc21 and the DOE. Increasingly, the city is becoming a "case study" for other towns and cities to visit and learn from, with delegations from Cardiff, Macedonia and Cyprus visiting over the past year to learn from the Service's experiences. The Council is also increasingly referred to in the technical press.</p>
2.8	<p><u>Next Steps</u></p> <p>The ZAP plan finishes in Mar 2015 and it is the intention of the Service to develop a new plan outlining the steps required to meet the recycling target in 2020. It is envisaged that, with the collection infrastructure now largely in place and the "low hanging fruit" captured, the next plan will have to consider value for money while focusing on key areas such as; public engagement/behavioural change, targeting poorer performing areas, material specific campaigns and working with colleagues to develop and deliver a Circular Economy for Belfast.</p> <p>A further report will be developed and presented to the relevant Committee shortly outlining the proposed steps to be taken to develop a new plan.</p>

<b>3</b>	<b>Resource Implications</b>
3.1	<p><u>Financial</u></p> <p>There are no financial resource issues related to this report.</p>
3.2	<p><u>Human Resources</u></p> <p>There are no human resource issues related to this report.</p>
3.3	<p><u>Asset and Other Implications</u></p> <p>There are no asset or other implications associated with this report</p>

<b>4</b>	<b>Equality and Good Relations Considerations</b>
4.1	There are no relevant equality and good relations implication.

<b>6</b>	<b>Recommendation</b>
6.1	<p>The Committee is requested to note:</p> <ul style="list-style-type: none"> <li>▪ the successful conclusion of the "Towards Zero Waste" Action Plan; and</li> <li>▪ that a separate report will be presented to Committee shortly outlining the necessary steps to develop a new plan going forward.</li> </ul>

<b>7</b>	<b>Decision Tracking</b>
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The Head of Waste Management will shortly present a separate report outlining the necessary steps to develop a new plan going forward.

**8** | **Key to Abbreviations**

NILAS – NI Landfill Allowances Scheme  
HRC – Household Recycling Centre  
WRAP – Waste & Resources Action Programme  
DOE – Department of the Environment  
EfW – Energy from Waste  
ZAP plan – “*Towards Zero Waste*” Action Plan 2012-2015

**9** | **Documents Attached**

Appendix 1 – “*Towards Zero Waste*” Action Plan 2012-2015  
Appendix 2 – Benchmark Cities for Recycling Rate  
Appendix 3 – Education and Promotions Section Work