
MANAGING RECYCLING IN CARDIFF

Reason for the Report

1. To provide Members with a briefing on the approach taken by the Council to recycle and process the waste material it collects in Cardiff. In doing so the item will highlight the statutory targets, available infrastructure, resources, challenges and responsibilities placed upon the Council.

Background

2. The Council is bound by a growing umbrella of recycling, waste treatment and disposal legislation to drive forward waste minimisation, increase recycling and to meet statutory obligations under:
 - Waste (England and Wales) (Amendment) regulations 2012;
 - The Landfill Allowances Scheme (Wales) Regulations 2004 for the disposal of biodegradable waste;
 - Waste (Wales) Measure 2010;
 - Recycling, Preparation for Re-use and Composting Targets (Definitions) (Wales) Order 2011 and Regulations 4 and 5 of The Recycling, Preparation for Re-use and Composting Targets (Monitoring and Penalties) (Wales) Regulations 2011 for recycling performance targets.

Waste Management Strategy 2011

3. Cardiff's Waste Management Strategy 2011 helped to drive overall recycling, reuse and composting rates rising from 39% in 2009/10 to 52% in 2012/13. However, the 2013/14 period saw the city falling marginally short of its 50% target by achieving

49.67%; this in part was attributed to delays in processing contracts and required operational services.

- 4. This meant that in the following years the Council had to take preventative measures to ensure future recycling targets were secured and cost efficiencies maximised. In addition the Council had to test its compliance with the duties to collect recyclable materials separately and to obtain high quality recycling.
- 5. The Welsh Government has imposed statutory targets for the recycling and diversion of waste from landfill and failure to achieve these carries a £200 per tonne penalty. The statutory targets for Wales and Cardiff are:

Target on waste collected by Local Authorities	2014/15	2015/16	2019/20	2024/25
Minimum overall recycling	52%	58%	64%	70%
Maximum level of landfill	-	-	10%	5%
Maximum level of energy from waste	-	42%	36%	30%
Biodegradable Landfill Allowance	43729t	41692t	33557t	-

Waste Management Strategy 2015

- 6. Achieving a good recycling outcome for Cardiff is very important and so the Waste Management Strategy 2015 is particularly mindful of the need to:
 - Meet the recycling targets for 17/18 and up to 70% by 2024/25;
 - Outline the future position on the recycling collections methodology;
 - Seek cost reductions and delivering the most cost effective recycling approach for Cardiff;
 - Secure high quality recycling;
 - Reduce Cardiff’s Carbon footprint;
 - Secure long term regional working and partnerships for recycling;

- Deliver all of the above whilst underpinning them with waste minimisation, education and enforcement activities.

10. The Waste Management Strategy is reviewed every three years to ensure it reflects the current challenges, legislation and recycling position. In doing this, the strategies summarise seven core objectives that underline all decisions and service changes, these are:

Headline Policy	Aim
Waste Minimisation	To inhibit the growth of MSW per capita by promoting waste minimisation initiatives with a long term aim of reducing growth to zero.
Underpinning Awareness and Education	To raise awareness with the public and the Council of the need to enhance re-use, high quality recycling and composting throughout the city through comprehensive stakeholder engagement.
Maximise high quality Reuse, Recycling and Recovery	To ensure compliance with all legislation and guidance produced, with the ultimate aim of achieving 70% re-use/recycling/compositing rate by 2024/25.
Minimising Waste to Disposal	To minimise the amount of MSW sent for disposal, by not exceeding the maximum amount of waste to landfill/energy from waste facility targets set by Welsh Government.
Partnering	To work with local partner organisations, where practicable, to deliver local, regional and national benefits.
Cost Efficient Service	To provide a value for money waste management service which is cost effective and efficient.
Sustainable Management	To offer waste management services that offer substantially improved sustainability and much reduced carbon emissions.

11. To deliver the aims of the strategy and provide step changes to our recycling performance the Waste Management Strategy 2015 is broken down into a series of implementation phases. Each of the phases have been subject to a detailed business plan and budget approval and form the building blocks of progressive change. The five phases are set out below:
- **Phase 1:** Residual waste restriction programme – Summer 2015 - this provided an additional 5,000 tonnes of recycling and £622k of savings by:
 - Moving to a smaller capacity for residual waste across the City through smaller wheeled bins (140L) or the equivalent volume of bespoke bags;
 - Expanding the number of properties using wheeled bins;
 - Increasing controls on issuing green bag and food liners to reduce wastage (and only providing them to Cardiff residents for use for recycling).
 - **Phase 2:** HWRCs, new markets and reuse options, 2015/16, to deliver an additional 5000 tonnes of recyclate;
 - Implement the two HWRCs sites; with stronger controls for cross boundary visitors; van users and reallocated resource to provide assistance the public to recycle more;
 - Increased reuse potential at the HWRCs and across the service;
 - Secure new recycling markets such as carpets; mattresses & hygiene waste to recycling.
 - **Phase 3:** Recycling collections change requirements 2016/17 onwards:
 - Deliver the outcome of a detailed business case and assessment for dry recycling for potentially kerbside sort; or twin stream and reusable recycling containers to ensure the Council are legally compliant with the new legislation and WG guidance;
 - Specific changes to flats and larger multiple occupancy houses;
 - This work will be supported by Local Partnerships and funded by Welsh Government.

- **Phase 4:** Recycling infrastructure 2016/17 onwards:
 - Commence delivery programme of regional facilities to sort recycling, subject to a feasibility assessment and outline business plan;
 - Material Reclamation Facility changes and or inclusion into the regional infrastructure may be required.
- **Phase 5:** Additional recycling performance; commercial, cleansing 2017/18 onwards:
 - Increasing household performance and continued education;
 - Looking at the smaller waste streams for recycling potential such as the remaining cleansing waste.

12. The majority of the initiatives identified to take the council to 58% have been delivered; however, constant thought is needed to ensure that the Council achieves future targets (for example, the target for 2019/20 is 64%). This in effect means that after taking into consideration waste and population growth we have to recycle approximately 32,000 tonnes of additional waste in Cardiff each year.

13. The financial risk of failing targets can be massive. For example, failing by 4000 tonnes could equate to a fiscal penalty of over £800,000. The “do nothing option” has not been an option for Cardiff; if no further changes are made to the delivery of Council recycling services then the fines between now and 2020 could equate to over £21m.

Kerbside Sort v Comingling

14. In addition to statutory targets, there has been a change to the fundamental EU legislation that relates to recycling and waste collections. This is set out in the revised Waste Framework Directive 2012 and subsequently the Waste (England and Wales) (Amendment) Regulations 2012. These regulations outlined a need for separate collections of waste paper, metal, plastic or glass by January 2015 or a robust evidence based defence to demonstrate that the collection methods used could achieve high quality recycling, whilst also being the best technical, environmental and economically practicable solution (TEEP).

15. The Welsh Government supports the new legislation and has also set out its preferred approaches in the “collections blue print”. Failure to adhere to this blueprint could result in loss of grant funding worth currently just over £7m per annum.
16. Absolute change was not required by 1st January 2015, however, the Council had to develop a business case for any proposed changes or create a TEEP evidence base. The business case used had to be benchmarked against a kerbside sort box solution as the EU and Welsh Government determined this method to be to the optimum solution for low cost, sustainable and high quality recycling services.
17. As a comingled authority, the Council developed a robust evidence base around its decision process and present data modelling on the Councils chosen collection method. The main areas that the Council had to consider in this evidence base were:
- **High Quality Recycling** - How the councils current end markets compared with that of kerbside recycling systems, for example, do they supply the same closed loop markets. There is a potential legal argument that as long as the material is recycled then this meets the definition of high quality recycling. Welsh Government had taken this meaning to be closed loop only as kerbside sort is perceived to provide higher quality outputs;
 - **Technically Practicable** – Is there any reason why kerbside sort cannot be undertaken. This can be taken down to a very small localised area, for example, flats;
 - **Environmentally Practicable** – Is it more damaging to the environment to undertake kerbside sort than the current method, for example, an increased carbon footprint;
 - **Economically Practicable** - The service costs from collections through to reprocessing should be compared against the default kerbside collection and reprocessing systems.
18. The Council also had to consider:
- **Human Health** - This could be the impacts of increased traffic congestion from slower kerbside collections and/or having to transport product to further distances to ensure they are processed through a closed loop processors;

- **Social Impacts** – This could cover a wide number of impacts and include the number of people employed in the street scene and quality impact on residents.

Current Collection Schedule

19. Since July 2015 Cardiff's waste collection has been scheduled in the following way:
- Dry recycling is collected on a weekly basis;
 - Food waste is collected on a weekly basis via the kerbside caddies;
 - Garden waste collections are fortnightly in the summer and monthly over the winter period;
 - General waste collections will remain fortnightly, but with a limited capacity per household of 140l (bin or bag space).
20. In order to ensure that Cardiff's waste collection and recycling services remain efficient as the city grows, the collection days and week of collection are reviewed on a regular basis. The number of vehicles and operatives have been carefully balanced to maximise efficiencies.

Waste Collection Changes – July 2015

21. The July 2015 review of waste collections maintained much of the approach taken in the pre July 2015 period, however, the following changes were made:
- **Wheeled Bin Expansion Programme** - Wheeled bin expansion programme was expanded with more suitable households across the city receiving wheeled bins for residual waste. A new 140 litre black wheeled bin was provided to just over 12,000 households, in addition just over 4,000 of these properties were provided with 240 litre green garden wheeled bins.
 - **240 Litre Black Bins Replaced by 140 Litre Black Bins** - All households that had a 240 litre black wheeled bin were given a replacement 140 litre bin.
 - **Limiting Municipal Waste Bag Collections** - Properties remaining on a bag collection were provided with a limited number of bespoke bags equivalent to three black bags per fortnight.

- **No Changes for Flats with Communal Bins** - Flats with communal bin collections remained on their current provision. Work was planned on a block by block basis to make recycling improvements and review residual waste capacity.
- **No Collection of Waste Presented in Black Bags** - Waste presented in black bags was no longer collected and was subject to an £80 fine. Municipal waste now has to be presented in the bespoke red and white bags.
- **Provision of Reusable Garden Bags to those Green Garden Wheeled Bins** - Households not provided with a green garden wheeled bins were provided with reusable garden sacks to present their green waste in. The first garden sack was provided for free with subsequent sacks available for purchase at a small fee.
- **Charge for Extra Green Garden Wheeled Bins** - A charge was applied to households requiring an extra green garden wheeled bin. In addition to this charges were introduced for any replacement, lost or stolen black or green wheeled bins.

Household Waste Recycling Centres

22. House Household Waste Recycling Centres provide facilities for the disposal of a range of recyclable materials and waste. These facilities are available to all residents for general household and garden waste. At this point in time Household Waste Recycling Centres recycle just over 60 % of the materials that they receive.
23. The Council operate to large purpose built sites at the new Lamby Way facility and Bessemer Close site. In addition, the Wedal road site remains open until a reuse provision is in place.
24. Some of the operational efficiencies that were identified and approved following the benchmarking and a best practise review in 2014/15 were implemented in 2015, they included:
 - New seasonal opening hours at the Household Waste Recycling Centres with a twelve hour opening in the busier summer months reducing to 9 hour opening in the quieter winter months;

- Facilities to be provided for Cardiff only residents, so proof of address is now required;
- Changes in staffing levels to provide more residential support for recycling.

Recycling Infrastructure

25. The Council currently processes and recycles much of its collected waste through the following pieces of infrastructure:

- **Materials Reclamation Facility (MRF)** - Cardiff's Material Reclamation Facility receives and processes mixed dry recyclable materials from its household and commercial waste collections.
- **Cardiff Energy Recovery Facility (ERF)** – this is the largest energy recovery facility in Wales treating waste from local authority and local business contracts. The facility, which has been operational since 2014, handles 350,000 tonnes of residual waste (non-recyclable), per year. It diverts at least 95% of South Wales' residual waste away from landfill and generates 30MW of electricity for the national grid. That is enough to power around 50,000 households.
- **Kelda Organic Energy (Cardiff)** – the facility delivers an anaerobic digestion (AD) facility and an open windrow composting for Cardiff and Vale of Glamorgan Council's. The facility is capable of processing 35,000 tonnes of discarded food waste each year, which will include all of the food waste collected by Cardiff and the Vale of Glamorgan Councils plus other commercial waste arising's from local businesses.
- **Household Waste Recycling Centres** – as stated previously in this report, these provide facilities for the disposal of a range of recyclable materials and waste. These facilities are available to all residents for general household and garden waste. Cardiff currently has three Household Waste Recycling Centres.

Regional Working

26. The benefits to Cardiff through regional working and joint procurements have been well evidenced with the success of projects such as the Project Gwyrdd; the Cardiff & Vale organics procurement and regional procurement contracts (such as electrical items; wood; textiles and sweepings). By combining together, we share the resource costs and secure better gates fees through economies of scale. Equally Welsh Government is keen to see more regional working to secure longer term cost savings.
27. Regional approaches have been tried and tested for residual waste, food and green waste facilities across Wales, yet there remains a gap in the market for recyclable materials. All local authorities (to varying degrees) recycle the following types of materials that are collected from the kerbside:
 - Paper;
 - Card;
 - Plastics;
 - Glass;
 - Metals.
28. Council's also provide additional household collections to deal with larger items such as furniture, wood, rubble, oils, batteries, textiles, and other bulkier items.
29. All local authorities' process to varying degrees: paper; card; plastics; glass; metals, from the kerbside but also larger materials such as furniture; wood; rubble; oils; batteries; textiles and other bulkier items from household waste collections.
30. Regardless of the collection method for dry recycling it is clear that the best market prices and quality can be obtained by further sorting materials ready for market, for example, glass into different colours; plastics into different types; metals into steel and aluminium and also depending on market condition paper into different grades. There are a range of local facilities across Wales, including our own Materials Recycling Facility, but no large scale facilities exist in Wales.

31. It is proposed that through partnership with Welsh Government and neighbouring authorities, Cardiff will explore the feasibility of a regional recycling facility. The programme will initially seek expressions of interest from surrounding and regional local authorities; test the market appetite for such a facility and most importantly what materials do the end processes seek in order to scope the facility requirements. The initial scope of materials under consideration will remain wide in order to maximise the potential of any such venture. The main objectives of the facility will initially be:

- To secure future recycling capacity for the region;
- To deliver high quality materials to the market place;
- To provide a flexible processing facility for all dry recycling materials;
- To provide economies of scale to deliver cost effective processing and maximise income potential for the region.

Street Cleansing

32. Street Cleansing is seen as a difficult area in which to make recycling improvements, however, it is felt that the currently low recycling rate can be improved and that a 60% recycling rate is achievable. The recycling of sweepings is currently take place and contribute towards achieving our overall target. Other initiatives need to consider how to increase recycling from litter bins and generate more recycling of bulky and fly tipped materials.

Commercial Waste

33. The core infrastructure is in place for commercial recycling with the Commercial Waste Service (currently recycling 40%) and the trade facility at Bessemer Close. A balance needs to be achieved between income and recycling performance in order to achieve the required recycling levels. Any commercial waste we collect contributes towards the overall total waste collected for purposes of calculating our statutory recycling target, i.e. currently 58%.

Recycling Results

34. The main recycling performance indicator is PAM/030 (Formerly WMT/009 (b)). This is defined as *'the percentage of municipal waste collected by local authorities and prepared for reuse and/or recycled, including source segregated biowastes that are composted or treated biologically in another way'*. This indicator essentially measures the Council's performance against the Welsh Government recycling target, which as previously explained is 58% for 2017/18.
35. The table below sets out the Council's recycling performance for PAM/030 for the years 2012/13 to 2015/16. The column titled 'Recycled Waste (tonnes)' measures 'the tonnage of local authority municipal waste prepared for reuse, recycled and/or collected as source segregated biowastes and composted or treated biologically in another way by the local authority', while the column titled 'Total Waste Collected (tonnes)' measures 'the tonnage of municipal waste collected by the local authority'.

Year	Recycled Waste (tonnes)	Total Waste Collected (tonnes)	PAM/030 Result
2012/13	90949.96	174,102.65	52.24%
2013/14	85,577.84	172,286.97	49.67%
2014/15	91,126.88	170,712.00	53.38%
2015/16	103,234.97	177,456.36	58.17%

36. The table above illustrates that Cardiff has managed to meet the challenging PAM/030 target for three of the four years – only falling marginally under this target in 2013/14. As a local authority area Cardiff collects and recycles more waste than any other Welsh local authority.

Way Forward

37. Councillor Michael Michael, Cabinet Member for Clean Streets, Recycling & Environment has been invited to attend for this item. He will be supported by officers from Commercial & Collaboration Services.

Legal Implications

38. The Scrutiny Committee is empowered to enquire, consider, review and recommend but not to make policy decisions. As the recommendations in this report are to consider and review matters there are no direct legal implications. However, legal implications may arise if and when the matters under review are implemented with or without any modifications. Any report with recommendations for decision that goes to Cabinet/Council will set out any legal implications arising from those recommendations. All decisions taken by or on behalf of the Council must (a) be within the legal powers of the Council; (b) comply with any procedural requirement imposed by law; (c) be within the powers of the body or person exercising powers on behalf of the Council; (d) be undertaken in accordance with the procedural requirements imposed by the Council e.g. Scrutiny Procedure Rules; (e) be fully and properly informed; (f) be properly motivated; (g) be taken having regard to the Council's fiduciary duty to its taxpayers; and (h) be reasonable and proper in all the circumstances.

Financial Implications

39. The Scrutiny Committee is empowered to enquire, consider, review and recommend but not to make policy decisions. As the recommendations in this report are to consider and review matters there are no direct financial implications at this stage in relation to any of the work programme. However, financial implications may arise if and when the matters under review are implemented with or without any modifications. Any report with recommendations for decision that goes to Cabinet/Council will set out any financial implications arising from those recommendations.

RECOMMENDATION

The Committee is recommended to:

- i. Note the contents of the attached reports;
- ii. Consider whether they wish to pass on any comments to the Cabinet following scrutiny of the item titled 'Managing Recycling in Cardiff'.

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30 August 2017