



National Assembly for Wales

Environment and Sustainability Committee

Inquiry into recycling in Wales

The Inquiry Terms of reference

- Explore reasons for and impacts of variations in local authority household waste recycling practice in Wales.
- To what extent local authorities' recycling practice aligns with the Welsh Government's Municipal Waste Sector Plan Collections Blueprint, and to explore barriers and enablers to adherence.
- Assess the availability of information and guidance to householders about why and how they should be recycling, and to explore potential barriers and enablers to improving recycling rates.
- Explore Local Authority reactions to the recently published Waste Regulations Route Map and the potential impacts and implications of this on recycling practice across Wales.
- Gain greater understanding of the relationship between recycling collection practice and recycling rates.

Response of Zero Waste Wales

The Welsh Government is to be commended for its commitment to and promotion of sustainable development. Integral to this is the promotion of high quality recycling through separate collections of materials. The emphasis in Towards Zero Waste, the Municipal Sector Plan and the Collections Blueprint nails Welsh Government policy colours firmly to the sustainability mast. The draft Guidance on separate collections

complements this consistent policy guidance with legal guidance that is also wholly consistent and aligned with European legislation and strategy. Sustainability runs through Welsh Government policies and communications as through a stick of rock and this principled approach is of huge credit to successive Environment Ministers in Wales.

The one area of disappointment is the irrationality behind the Welsh Government's funding of local authorities via the Sustainable Waste Management Grant (SWMG). Having set out its strategic and policy agenda and having led the debate in an uncompromisingly principled manner, the Welsh Government has allocated hundreds of millions of pounds of public money in a way that disregards its own agenda. It is an approach that is entirely irrational and one that opens the Welsh Government to the possibility of legal challenge.

In this submission to the Environment and Sustainability Committee Zero Waste Wales intends to demonstrate the evidential basis of its arguments. We present the evidence as part of a narrative explaining the evolution of the Zero Waste approach in Wales.

EXECUTIVE SUMMARY – Using the terms of reference as questions.

Q1 Explore reasons for and impacts of variations in local authority household waste recycling practice in Wales.

A1 The variations exist- are slowly converging and the speed of this convergence is inexcusable and unacceptable.

Q2 To what extent local authorities' recycling practice aligns with the Welsh Government's Municipal Waste Sector Plan Collections Blueprint, and to explore barriers and enablers to adherence.

A2 Many local authorities have plans that are aligned but a significant number don't even though the government pays the cost of their efforts.

Q3 Assess the availability of information and guidance to householders about why and how they should be recycling, and to explore potential barriers and enablers to improving recycling rates.

A3 Information for householders varies in quality and quantity and far too many did not invest sufficiently in communicating with households when they rolled out their new recycling programmes. Lots of repairs needed. Not many explain why people should recycle.

Q4 Explore Local Authority reactions to the recently published Waste Regulations Route Map and the potential impacts and implications of this on recycling practice across Wales.

A4 I predict that the good guys will welcome it and the bad guys will use the "old" excuses, listed below, as to why they don't.

1. Every area is different – we know ours – don't tell us what to do.
2. One size doesn't fit all – the Government Policy is too rigid and too prescriptive.
3. Our community voted for it – we sent out an options questionnaire and they chose itOR
We did a survey and got high satisfaction rates from the respondents – we asked them about the other system but they didn't want to change.
4. Kerbside sorting is too complicated and we tried it in a pilot and got low responses.
5. Kerbside sorting requires too many containers and people in our area haven't got room for that.

Q5 Gain greater understanding of the relationship between recycling collection practice and recycling rates.

A5 This is easy. In 1990 Wastewatch commissioned NOP to carry out a poll about recycling and a large number of people responded saying

“Give us a simple, reliable system that is easy to use and we’ll use it”

At one point in the recent past the 22 Local Authorities in Wales had instituted or were piloting 26 different systems – mostly designed by waste managers that love big trucks and short working shifts that finish mid afternoon. Enough said I think

But ---I am personally aware of municipalities throughout the world that have achieved over 80% recycling rates (waste reduction -South Australia and San Francisco to name but two of the noisier ones) and many that report approaching 90% - so don't ---please don't ---take anyone saying to you that high recycling rates or Zero Waste is impossible too seriously.

Wales IS doing well but could do a lot better if it enforced its own policies and plans more single-mindedly. This is the 21st century and waste was a 20th century mistake - a very big mistake.

The more detailed submission.

The Zero Waste journey in Wales began with the development of the first national waste strategy for Wales. Cylch – the Community Recycling Network in Wales – was instrumental in promoting the principles of Zero Waste through the Wales Waste

Forum and through as many other avenues as it could. Whilst representatives of local authorities and the waste industry argued against policies to achieve Zero Waste, including the proposed 40% recycling target, Cylch argued for Zero waste including much higher recycling targets in the short term.

Wise about Waste, the first national waste strategy for Wales showed that the new administration in Wales was prepared to take a new, long term approach. A scientifically researched and evidence-based approach to policy. Setting ambitious targets and writing action plans based on the principles of sustainable development.

The Welsh Government poured huge amounts of funding into Welsh local authorities without prescribing the approaches they should take. This led to disparate approaches and massive waste of public money. The unit costs of recycling varied hugely - at least an order of magnitude across Wales.

This was shown by the RPS report prepared for the Welsh Government¹. The community sector services that were shown in such a good light by this report used the approach of kerbside-sort recycling. The careful collection of recyclable materials that are sorted by professional sorters into separate compartments on the truck at the kerbside. Householders see their efforts being respected and materials being collected carefully.

The report was widely discredited, not due to the work of RPS but rather due to the acknowledgement by many local authorities that the data that they themselves had provided was too inaccurate to use in such a study. –Put simply - they didn't like the report because it showed them up.

Zero Waste advocates – those pushing for higher targets via separate collections at the time knew that separate collections were the best and most economic way of providing recycling services.

¹ Survey of Funding of Municipal Waste Management Kerbside Collection in Wales Summary Report, RPS Planning and Development, 9th August 2007.

In addition to the normal measures the carbon impacts of different methods of collection and post collection sorting were shown by the ADAS report for London Borough of Camden² which stated that:

“The carbon footprint of the whole process for the co-mingled collection, transfer and MRF is 77% greater than for the kerbside sorted recycle collection system.”

Proponents of kerbside sort have long argued that having the quality control process at the moment of collection maintains high quality of separately collected materials and reduces contamination. The materials reprocessors require clean, high quality materials as feedstock for their operations and are willing to pay premium prices for high quality materials. Cylch argued this case knowing that kerbside sort recycling services would have better outcomes than co-mingled services. We were derided for our views, particularly by some in the local government sector who argued that their local residents were incapable of co-operating with a kerbside sort service. This view was in part motivated by resentment that either the community sector or Welsh Government civil servants might know more about recycling than the waste experts in the municipalities. This stubborn contrariness has manifested itself to the present day, despite the evidence.

Cylch then and Zero Waste Wales now adhere to the principles of sustainable development, which include evidence led policy making. So what of the evidence since?

High quality recycling is closed loop recycling where glass bottles and jars are recycled into similar products, paper into paper and so on. The carbon benefits of the closed loop recycling of glass were demonstrated in the Grant Thornton/Oakdene Hollins report³ that studied the impacts of closed and open loop recycling.

² Energy Audit and Carbon Footprinting of the Kerbside Recycling Services in the London Borough of Camden, ADAS.

³ The impact of the carbon agenda on the waste management business, Grant Thornton, Oakdene Hollins, 2006.

This was further demonstrated when ARUP produced a report for the Welsh Government exploring the ecological footprint impacts of different waste management options⁴. This showed that some forms of recycling are more damaging in environmental terms than landfill. These are the low quality recycling options often associated with co-mingled collections. By contrast the high quality recycling options with better environmental impacts are associated with options enabled by kerbside sort recycling.

The environmental benefits of kerbside sort recycling were further demonstrated by study carried out for WRAP using the Waste and Resources Assessment Tool for the Environment (WRATE) life cycle assessment (LCA) tool⁵. This includes:

“The study indicates that the carbon footprint resulting from the kerbside waste and recycling collection systems and the onward transport of recyclate and wastes are small relative to the burdens caused in disposal or those avoided by recycling. The Kerbside sort (KSS) systems modelled in the study operate using smaller stillage vehicles with lower fuel use and emissions, resulting in a lower carbon footprint compared to the gigantic, diesel-guzzling refuse collection vehicles (RCVs) used for single stream co-mingled collections and the split RCVs used for 2 stream co-mingled collections.

The kerbside sort system, followed by two stream co-mingled, offer the most environmentally beneficial options compared to the single stream co-mingled system.”

More recently the Recycling Carbon Index published by Eunomia illustrates how kerbside sort recycling services have lower carbon impacts than co-mingled recycling services.

The financial benefits of kerbside sort recycling are shown by the study carried out for WRAP using the Kerbside Analysis Tool (KAT) modelling⁶. This includes:

⁴ The Ecological Footprint Impacts of the Welsh Waste Strategy – Ove Arup & Partners Ltd, May 2009.

⁵ Kerbside Recycling in Wales: Environmental Costs, Waste and Resources action Programme (WRAP), March 2009.

“Three collection and sorting systems (single stream co-mingled, kerbside sort and two stream co-mingled (where fibres are kept separate from containers)) were modelled using KAT for two types of local authority context (urban and rural) to reflect current good practice systems in operation in Wales and again to reach 70% recycling (urban only). Six different scenarios were identified for both the current and future systems.

For the current collection systems, comparison of the net financial costs of kerbside recycling (i.e. costs where the MRF gate fee has been added to the cost of collection for co-mingled systems and the value of materials income has been deducted for kerbside sort systems) modelled for the current systems shows that kerbside sort is the lowest cost option, followed by two stream co-mingled and then single stream co-mingled.”

The definitive analysis of the different approaches to kerbside recycling was undertaken by Eunomia Research and Consulting⁷ for WRAP. In its comprehensive and unrivalled measurement and analysis Eunomia concludes that both environmental and financial outcomes are better with kerbside sort approaches, Indeed, Eunomia identifies the potential for £20m savings each year if all local authorities in Wales were to use kerbside sort.

These findings are consistent with those of the WRAP report *“Choosing the right recycling collection system”*⁸ which illustrates the advantages of kerbside sort over co-mingling.

All these studies and reports taken together (and there are many more) provide an absolutely compelling and irrefutable body of evidence that kerbside sort collections are environmentally and financially better than co-mingled collections.

⁶ Kerbside Recycling in Wales: Indicative Finance Costs, Waste and Resources Action Programme (WRAP), March 2009.

⁷ Kerbside Collection Options: Wales, Eunomia Consulting and Research for WRAP, January 2011.

⁸ ‘Choosing the right recycling collection system’, Waste and Resources Action Programme (WRAP), June 2009.

There have been studies that have reached different conclusions, most notably the White Young Green (WYG) reports sponsored by the waste industry that is dependent upon co-mingled collections. I will not waste time with a detailed critique of these reports suffice it to say that they are methodologically flawed and cannot be considered in the same way as the independent and empirically robust reports referred to which include the Welsh Government's own researching and data gathering.

After materials are collected and sorted they have to be reprocessed so that they can then be used as raw materials for manufacturers. The reprocessors are thus fundamental to the circular economy. For the circular economy to be efficient and for it to contribute to Ecological Footprint reduction (the key measure of the Welsh Government's performance in promoting sustainable development) collection, reprocessing and remanufacture must operate as an efficient continuum. Should this continuum be compromised then the circular economy cannot exist. So, what is the view of the reprocessors regarding collection methods?

The European paper reprocessing sector has made it clear that it wants co-mingling to be phased out in its *European Declaration on Paper Recycling 2011 - 2015*⁹. This includes:

To secure [sic] used paper collected in Europe can be recycled in the paper industry, multi-material collection schemes ("co-mingled collection") where all recyclable materials are collected in one stream must not spread further in Europe and must be phased out where it already exists. Co-mingled collection has proved to be much less efficient in terms of quality and cost of the complete paper recycling process compared to separate collection of paper and risks diverting paper to recovery options lower in the Waste Hierarchy. Countries where co-mingled collection is predominant today must make significant progress towards the targets on separate collection set out by the Waste Directive."

⁹ European Declaration on Paper Recycling 2011 – 2015, European Recovered Paper Council, September 2011.

No-one should think though that such concerns are confined to Europe. Clarissa Morawski has produced a report¹⁰ published in Resource Recycling that shows that co-mingled collections are far worse than alternatives.

Defra published a report on textiles recycling¹¹ prepared for it by Oakdene Hollins, which includes:

“The growth of co-mingled household collections is a threat to greater recycling and reuse, as textiles are unattractive to MRF operators and the collection methods often result in poor quality.”

By contrast kerbside sort collection services are able to collect textiles and ensure that they retain their quality and value.

An article in MRW – *“Most commingled textiles too contaminated for reuse”*¹² includes:

“A 2012 study of textile reuse found that textiles in commingled collections had average disposal costs of £84. On the other hand, revenue generated from segregated textiles collections ranged from £676 - £1,738 at textile banks and charity shops.”

British Glass has expressed the view¹³ that:

“There is concern in the glass sector about quality from MRFs, not only for container manufacture but for fibre manufacture also. Good quality recycled glass is declining as more and more local authorities and waste management companies become

¹⁰ Single Stream Uncovered, Clarissa Morawski, Resource Recycling, Oregon, February 2010.

¹¹ Maximising Reuse and Recycling of UK Clothing and Textiles, prepared for Defra by Oakdene Hollins, October 2009.

¹² <http://www.mrw.co.uk/news/most-commingled-textiles-too-contaminated-for-reuse/8651420.article>

¹³ <http://www.politics.co.uk/opinion-formers/british-glass/commingled-versus-separation>

reliant on MRFs. The material coming from some MRFs is only suitable for low grade applications such as replacement aggregate. By degrading recycled glass in this way means the environmental benefits associated with closed-loop recycling will be lost.”

Having worked with materials reprocessors for many years through Cylch and the Campaign for Real Recycling (CfRR) I know that they support the use of kerbside sort recycling. It is indeed fundamental to resource efficiency and the circular economy – and to Welsh and European approaches to sustainable resource management. The importance of resource efficiency to the health of the European economy and environmental sustainability is set out in the European Commission’s Roadmap to a Resource Efficient Europe¹⁴.

The Welsh Government and European Commission have been developing policy approaches towards resource efficiency and the circular economy for many years. This is evident in a number of strategic documents and also in legislation. The Waste Framework Directive and daughter directives such as the Landfill Directive provide legal expression to the strategic approaches based on the same imperatives that are highlighted by the evidence presented in this response.

No sentient being should be unaware of the direction of travel of all these policies and the vision that underpins them – Europe is heading for a resource-efficient, circular economy – waste cannot exist in that vision because it is the most obvious symptom of inefficiency and the Waste Framework Directives outlaw waste most determinedly and most definitely.

As a government Wales does at present and must continue in the future to align its policies with those of Europe.

Zero Waste Wales supports that plan. Kerbside-sort, resource efficiency, the circular economy, Ecological Footprint reduction, sustainability – these are all aspects of the same continuum – one that I might refer to as depending upon Zero Waste as a precondition for achievement.

¹⁴ Roadmap to a Resource Efficient Europe, European Commission, COM (2011) 571 (final.

Some of the naysayers have sought to contend that there are health and safety problems with kerbside sort collections. This faux concern illustrates the charlatanism of some who would prefer to argue against sustainability because it threatens their own egos. They are wrong, the evidence demonstrates that they are wrong but they lack the humility to acknowledge it. Spurious assertions about health and safety are introduced.

Firstly let's address head on the issues around slips trips and falls. Yes there can be issues with loose boxes and with some aspects of manual handling. The market is responding to these concerns with the development of stackable units of recycling boxes which are as easy to use and take up less space than wheeled bins. Also, the claimed risks in carrying recycling boxes are simply not borne out by the evidence, as the Centre for Health and Environmental Research and Expertise (CHERE)¹⁵ reported:

"This study failed to identify any significant risks within kerbside recycling operations using boxes and bags that could not be effectively managed and controlled. The risks identified included twists and strains which were most obvious with certain rear-loading vehicles where operatives found it necessary to adopt un-safe postures in order to load the vehicle. Side-loading or purpose built rear loading vehicles appeared to present significantly less risks."

Those who seek to make an issue of health and safety in the context of kerbside sort recycling rarely refer to the deaths and serious injuries associated with co-mingled collections. Co-mingled collections rely on Materials Recovery Facilities (MRFs) to sort materials after sorting. Below are just a few links to the trade press illustrating some of the health and safety issues in these MRFs. The deaths and serious injuries must not be ignored:

<http://www.letsrecycle.com/news/latest-news/waste-management/biffa-fined-ps20-000-after-worker-severs-fingers>

¹⁵ Centre for Health and Environmental Research and Expertise, 2006.

<http://www.bbc.co.uk/news/uk-england-lancashire-26835253>

<http://www.letsrecycle.com/news/latest-news/general/man-dies-at-sita-recycling-site>

<http://www.letsrecycle.com/news/latest-news/waste-management/hse-investigates-incident-at-msk2019s-barking-site>

There are MRFs in Wales where health and safety signs are bilingual – English and Polish, this because as their managers openly say, Welsh people don't want to work in such an environment. MRFs are often dusty, dirty and dangerous places to work. The work, picking materials out of mixed waste on conveyor belts, is unpleasant and boring.

It should also be noted that several Welsh local authorities send waste to large MRFs in England. They are supporting poor quality jobs in England rather than high quality jobs in Wales.

This demonstrates that those who assert that co-mingled collection systems are safer are wrong.

Some of the naysayers contend that the public prefer co-mingled collections. In a report prepared by Dr Jane Beasley¹⁶ she states that:

“A total of 24 authorities with recent and relevant satisfaction surveys were identified consisting of: 9 high performing authorities offering kerbside sort; 9 high performing authorities offering comingled; and 6 high performing authorities offering 2 stream plus. As can be seen from Table 8 there is little difference between the range of satisfaction rates given by residents to the different collection systems. Therefore this does not support the assumption that the public prefer comingled collection (in relation to its ease of use), other factors are clearly more significant such as:

¹⁶ Dry Recyclate Kerbside Collection Systems, Beasley Associates, April 2012

regularity and reliability of service, range of materials collected, communications and education etc.”

Table 8: Range of satisfaction rates for the different collection systems

Scheme	Range (low to high)
Kerbside Sort	78% - 96%
Comingled	76% - 92%
2 stream plus	78% - 91%

This demonstrates that those who assert that the public will not embrace kerbside sort recycling are wrong.

Some LAs are recycling materials to a high standard, helping to reduce the Ecological Footprint of Wales (e.g. sending glass to re-melt). Other LAs are recycling in ways that increase the Ecological Footprint of Wales (e.g. sending glass to aggregate). **Both approaches to recycling count towards the Welsh Government' statutory recycling targets and we consider this to be irrational. The Welsh Government should amend its legislation to require closed loop recycling.**

Irrespective of the approaches to recycling each LA gets funding according to a formula. **In other words, low quality recycling that contributes to a poor Ecological Footprint outcome is funded in the exactly the same way as high quality recycling that contributes to a good Ecological Footprint outcome and we consider this to be irrational.**

The Welsh Government should amend its approach to funding so that closed loop recycling is prioritised over open loop recycling.

Is it time now for another delivery agent to provide recycling services to the people of Wales? This would ensure a standard approach across Wales, with savings in procurement. No two LAs provide services with the same profile – that is inherently

inefficient of course. An independent not for profit body could manage recycling in Wales, based on optimal use of assets, including vehicles and depots, unimpeded by political boundaries. Efficiencies of scale can lead to more efficient and lower cost procurements and materials can be presented in a market to optimise the benefits to the people of Wales. Perhaps a model similar to that of Dwr Cymru in the water sector should be considered.

The Welsh Government is to be commended for its commitment to and promotion of sustainable development. Integral to this is the promotion of high quality recycling through separate collections of materials. The emphasis in Towards Zero Waste, the Municipal Sector Plan and the Collections Blueprint nails Welsh Government policy colours firmly to the sustainability mast. The draft Guidance on separate collections complements this consistent policy guidance with legal guidance that is wholly consistent and aligned with European legislation and strategy. Sustainability runs through Welsh Government policies and communications as through a stick of rock and this principled approach is of huge credit to successive Environment Ministers in Wales.

The promotion of sustainability and the move towards 'one planet living' were embraced by Cylch and are fundamental to the principles underpinning Zero Waste Wales. It is with great pride that I look back on the journey of the last few years and reflect on how much the debate has changed.

It is vital to Wales' reputation and credibility as an advocate of sustainability that the Welsh Government has the courage to use legislation and funding to support its policies and principles. If it does so and requires the implementation of its Collections Blueprint across Wales then all who care about our world and its future will proudly hold Wales up as the international exemplar it will have become.

If though the Welsh Government betrays the principles that have brought it this far or holds back from implementing them with conviction, then Wales's efforts will be considered a disappointment and a missed opportunity. I have spent the past 20 years fighting in the recycling field for the causes of sustainability and social justice

and I beseech my colleagues and friends in the Welsh Government not to waver now.

The Welsh Government is fortunate to have internationally-recognised technical experts and high calibre civil servants driving its resource efficiency agenda. The decades of experience these officials have in promoting sustainability outweighs the parochial and myopic perspectives of those few Luddites in local government and the waste industry that are too prejudiced or too stupid to understand sustainability, resource efficiency and the economic and social benefits of the circular economy.

The Environment and Sustainability Committee should ensure that the Welsh Government and the Welsh Ministers stay true to the course of sustainability so that Wales may create jobs, regenerate communities, reduce costs and reduce impacts on the environment. The naysayers should be ignored for they have little of merit to say.

Hope, optimism and care for the planet must prevail over despair, pessimism and disregard for the planet. Zero waste is about ending the waste of materials, energy, food and water – but it's also about ending the waste of human potential.

I submit this response to the Environment and Sustainability Committee in this spirit and will be happy to discuss any aspect of this submission further with the committee or any of its members.

Mal Williams

Zero Waste Wales

Cardiff

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