

## **Submission from Zero Waste Scotland**

### **Executive Summary**

ZWS strongly supports the purpose of the Zero Waste Regulations as proposed in the Scottish Government Policy Statement and Business Regulatory Impact Assessment. We believe the proposals to be necessary and proportionate, and we will work with the Scottish Government to ensure that they will deliver real benefits to the people of Scotland.

We have three key points of detail:

- We support the focus on improving the quality and quantity of materials collected for recycling and we believe that exceptions from this drive for quality should generally be justified by evidence on the relative environmental impacts.
- Developing the right conditions for market development is a key goal for the Zero Waste Plan. We believe that the Regulations will help to achieve this, and ZWS look forward to playing our part through the financial support and other mechanisms which we offer to businesses, local authorities and other stakeholders.
- ZWS is also working with the Scottish Government to ensure that the Regulations align with the forthcoming strategy on waste prevention, to ensure that Scotland continues to move up the waste hierarchy.

### **The Role of Zero Waste Scotland**

Zero Waste Scotland (ZWS) delivers a range of support programmes to help individuals, businesses and communities across Scotland to reduce waste, recycle more and use resources sustainably. ZWS is a programme managed by the Waste & Resources Action Programme (WRAP) on behalf of the Scottish Government. WRAP is an evidence based organisation. Our role is to help deliver the priorities of our funders with regards to resource efficiency and the growth of a low carbon economy.

The work of ZWS is done on behalf of and under the policy direction of the Scottish Government. Waste policy is set by the Scottish Government. ZWS advises the Government on the environmental and technical evidence base underlying waste policy decisions and is involved in the delivery process once these policy decisions have been taken. We also work closely with SEPA to understand the interaction between market and regulatory matters and are in close liaison with businesses throughout Scotland.

ZWS has worked closely with the Scottish Government in the development of the Zero Waste Regulations, providing expert support to the consultation, policy statement and Business Regulatory Impact Assessment (BRIA). ZWS will also have a significant role in their implementation and delivery. This document outlines some key elements of the advice and evidence which ZWS provided during the development of the Regulations.

### **Overall approach of the Zero Waste Regulations**

ZWS strongly supports the overall approach taken in the Zero Waste Regulations policy statement and BRIA. We believe that the purpose of the Zero Waste Regulations – to lay out a regulatory framework which will improve resource management in Scotland – is a necessary and important step in the national journey towards a zero waste society. Research by WRAP on behalf of the Scottish Government and the other three nation governments across the UK into the feasibility of landfill bans concluded that bans can have environmental and resource

efficiency benefits and that these gains are likely to be greatest where coupled with a requirement to sort materials<sup>1</sup>.

The Scottish Government's Zero Waste Plan and these Regulations are based around the concept of driving waste up the waste hierarchy (the best option being prevention, then reuse, recycling, energy recovery and finally landfill). Such an approach ensures that environmental impacts are reduced in waste management decisions and enables Scotland to meet its share of the UK's responsibilities under EU legislation.

The Regulations will aid market development and allow significant economic benefits to be realised, ensuring that Scotland is safeguarded against further changes in resource prices and supply disruptions by making the best use of our resources. Resource scarcity is now recognised as a major global economic concern<sup>2</sup>. Economic experts have suggested that promoting a transition towards a circular economy will mitigate this risk. The 2012 report "Towards the Circular Economy", produced by McKinsey & Company for the Ellen MacArthur Foundation, found that net material cost savings opportunities of up to USD 380 billion annually for the EU could be realised by such a transition<sup>3</sup>. The Zero Waste Regulations will be a vital link in this transition process given the need, as the report states, to focus on quality during the transition ("uncontaminated material streams increase collection and redistribution efficiency while maintaining quality").

### **Quality of material collected**

ZWS strongly supports the emphasis on the quantity and quality of material collected, noting the requirements outlined in Article 11 of the revised EU Waste Framework Directive to promote high quality recycling.

The Regulations will maximise the opportunity for closed loop recycling by ensuring the quality of material collected meets closed loop recycling standards. The best available evidence, such as that used in the Scottish Carbon Metric<sup>4</sup>, indicates that this approach will maximise environmental savings. For example, material which is of sufficiently high quality to be recycled into closed loop applications (where the material is reprocessed into the same or a similar product) typically generates far greater environmental benefits than material which is of lower quality, and can therefore only be sent to open loop uses (for example, recycling glass bottles into road aggregates rather than back into glass bottles). ZWS are currently developing kerbside best practice guidance to ensure material collected for recycling meets closed loop quality standards and the amount of material collected is maximised.

ZWS notes that the vast majority of published evidence indicates that the benefits of recycling significantly outweigh the additional impacts created by the recycling process, such as transport and reprocessing impacts, other than in certain limited cases (e.g. food-contaminated plastics may be an exception). This suggests that contaminated recyclate should be recycled as a default measure unless there is life cycle evidence to show that another waste management method is environmentally preferable. Any waste material which is excluded from the requirements to source segregate and separately collect should be able to justify its exclusion by reference to life cycle evidence.

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<sup>1</sup> WRAP (2010) The Feasibility of Landfill Bans

[http://www.wrap.org.uk/wrap\\_corporate/publications/landfillban.html](http://www.wrap.org.uk/wrap_corporate/publications/landfillban.html)

<sup>2</sup> World Economic Forum (2011) Global risks 2011 <http://reports.weforum.org/global-risks-2011/>

<sup>3</sup> McKinsey & Company (2012) Towards the Circular Economy <http://thecirculareconomy.org/>

<sup>4</sup> ZWS (2011) The Scottish Carbon Metric Technical Report

<http://www.zerowastescotland.org.uk/sites/files/wrap/Scottish%20Carbon%20Metric%20Technical%20Report%20v2.pdf>

The additional transport impacts associated with recycling and food waste collection services are sometimes cited as examples where the environmental benefits gained by recycling might be outweighed. Zero Waste Scotland conducted analysis into this possibility for indicative materials as part of its research on the Carbon Metric<sup>5</sup>. This study, which has been peer reviewed by the Carbon Trust, shows that the transport impacts offset less than 1% of the benefits gained from sending aluminium to recycling, which saves 9,267 kg of greenhouse gas emissions for every tonne diverted from landfill.

### **Separate collections for Waste Producers**

ZWS support the Policy Statement's proposed approach, which will require all waste producers to source segregate and separately collect dry recycle. ZWS considers the published evidence on this subject to indicate that recycling and anaerobic digestion for bio-waste has clear environmental benefits over other waste management options. These benefits significantly outweigh the impacts created by the recycling process, such as additional transport and clean up impacts. There are also economic benefits to be realised, for example, if current recycling targets are achieved, removing metal cans and foil from both household and business waste could result in an additional 31,000 tonnes of metals being recycled each year. At current market prices, this would be worth over £6 million. It would also save at least 90,000 tonnes of greenhouse gas emissions as well.

Building on the initial Cost Benefit Analysis, the Business Regulatory Impact Assessment (BRIA) conducted by ZWS<sup>6</sup> and the Scottish Government<sup>7</sup> estimates that achieving the Zero Waste Plan will benefit Scotland's economy by between £196m and £216m by 2025. To support businesses in this transition period, ZWS is working with SMEs to improve collection sources and with all businesses to maximise resource efficiency. For example, in a trial funded by WRAP, a plastics recycling company in the UK has become the first organisation to successfully incorporate recycled plastic from the UK waste stream within a high end electrical equipment item, delivering 5% savings on raw material costs<sup>8</sup>.

### **Disposal of food waste to sewer**

In response to the proposed ban on the use of food waste disposal units, some stakeholders have raised concerns that if macerators are in widespread use at present, there may be significant impacts associated with the lost investment and removal of installed equipment. ZWS undertook a short study to quantify the number of such units in use in Scotland. It identified that there are approximately 540 non-domestic macerators in use in Scotland, and that 90% of these are installed within public sector facilities (i.e. schools, hospitals, care homes, prisons & further education facilities). This subject may require further investigation; however, it appears that the use of macerators in commercial and business premises is relatively uncommon. Therefore we anticipate the ban will have a limited impact on the commercial sector in Scotland.

ZWS therefore supports the ban on non-domestic use of food waste disposal units and food digesters as available evidence suggests that they encourage a disposal route over food waste minimisation and they are a less sustainable solution than separately collecting food waste and processing via Anaerobic Digestion.

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<sup>5</sup> Zero Waste Scotland (2010) Carbon Metric Technical Report <http://www.zerowastescotland.org.uk/carbonmetric>

<sup>6</sup> ZWS (2010) Economic assessment of the Zero Waste Plan for Scotland  
<http://www.zerowastescotland.org.uk/ZWPcostbenefit>

<sup>7</sup> Scottish Government (2011) Zero Waste (Scotland) Regulations, Draft Business and Regulatory Impact Assessment  
<http://www.scotland.gov.uk/Resource/Doc/360357/0121818.pdf>

<sup>8</sup> WRAP Case Study on Closed Loop Recycling – opening the door to cost savings  
[http://www.wrap.org.uk/downloads/18356-01\\_EEE\\_Indesit\\_Launch\\_CS\\_for\\_web.00176091.6160.pdf](http://www.wrap.org.uk/downloads/18356-01_EEE_Indesit_Launch_CS_for_web.00176091.6160.pdf)

## **Food waste collections**

ZWS supports the overall approach to encouraging separate food waste collections. However, we note that no food waste management or disposal route should be promoted over preventing food waste in the first place, and we will be working with the Scottish Government to consider how food waste collections can support food waste prevention measures effectively across the whole of Scotland.

There is a proposal in the regulations to allow LAs to commingle food and garden waste when similar environmental benefits and system performance to food waste only collections can be demonstrated. ZWS believes that such alternatives should generally only be considered where PAS compliant Anaerobic Digestion facilities which can accept separate food waste collections are not available in an area. Where such facilities are available (the conditions under which facilities would be considered “available” should be clearly defined), we would encourage LAs to tailor their collections to these systems, as commingled collections sent to other disposal routes are unlikely to offer environmental benefits as high as are generated by anaerobic digestion of food waste. The kerbside best practice guidance being developed by ZWS will help ensure LAs develop appropriate collection services.

## **Thermal treatment and landfill bans**

Given the policy drive in Scotland to maximise the quality and quantity of materials collected for recycling, ZWS strongly supports the proposed ban on separately collected dry recyclates and biodegradable materials going to landfill, and the proposed restrictions on inputs to thermal treatment facilities in Scotland. The Feasibility of Landfill Bans study undertaken by WRAP in 2010 concluded that bans have the potential to deliver net (environmental and financial) benefits<sup>1</sup>. This study, which was independently peer reviewed by ERM, also found that environmental and resource efficiency benefits are likely to be greatest where landfill bans are coupled with a requirement to sort materials, indicating the mechanisms for requirement to sort in the Zero Waste Regulations will increase the benefits of these policy measures.

The approach taken in the Regulations is in line with the waste hierarchy, where energy recovery sits immediately above landfill, and should only be considered for those materials where there is no better treatment option (e.g. recycling or reuse) in terms of environmental benefits. Regarding the provision to allow rejects from sorting facilities to go for incineration, ZWS will be developing a code of practice for MRF output to ensure the quality of the sorting process.