

National Assembly for Wales
Environment and Sustainability Committee
RW 18
Inquiry into recycling in Wales
Response from: Bryson Recycling

Inquiry into recycling in Wales

- [View the background to this consultation](#)
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Purpose of the consultation

The National Assembly for Wales' [Environment and Sustainability Committee](#) is undertaking an inquiry into **Recycling in Wales**.

The purpose of this inquiry is to explore current local authority household waste recycling practice and arrangements across Wales. The inquiry will look at all waste materials, including food and garden waste.

Bryson Recycling response to consultation

Bryson Recycling is a social enterprise based in Northern Ireland. We carry out kerbside sort recycling services to 170,000 houses, and operate a materials recovery facility to service a further 350,000 houses. We are the leading provider of household recycling services in Northern Ireland and are the largest social enterprise in this field in the UK.

Bryson Recycling has helped advise the Welsh Government in the recent past, and has always been keen to share information openly. While our kerbside services are based outside of Wales, the issues we face have a lot in common.

Our approach is to maintain an open mind to how recycling should be carried out, and focus on the approach that is most likely to result in best environmental and social outcomes. I would like to make the following observations on the final question posed on the consultation web page as it is most relevant to our experience.

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

There are a number of areas that I would like to comment on.

Effectiveness of the recycling collection systems

Our experience is that that like for like, the public prefer wheelie bins to boxes and bags because they are easier to use. It would appear from trials of the new wheelie boxes, that their popularity (backed up by their level of usage), is equivalent to a wheelie bin. All being

equal we have found that the use of standard boxes leads to a differential of about 8% between the approaches, this includes taking into account the 'first level' of contamination (from disposal rates at the MRF). This is not by any means the whole picture, and please note comments in the section 'hidden factors within comingling' and 'the Welsh blueprint'. It is important to acknowledge the fact that there appears to be a discrepancy, and some of the factors that account for it.

We have found that we yield relatively more paper and cardboard from comingled collections and more plastics, cans and glass from the kerbsort operations. Large card is undoubtedly easier to recycle in comingled collections. The differences in the other materials are harder to explain and could be the subject of further investigation.

The limiting factor for the MRF however is the acceptance of glass and a more complex mix of materials. Other MRFs purport to take a much wider range of materials than the Bryson facility, but we have found that despite years of concentrating very hard on quality outputs, that our ability to meet UK specification for key items such as paper is marginal. At present our MRF is glass free, and we believe that the idea of adding glass would tip our quality over the edge and result in us being entirely dependent on the export market. There is a simple principle, that the more materials we add to the single stream mix, the more complex the sorting process becomes and the greater risk of low quality materials.

We also know from our close relationship with the UK reprocessing industry that they have increasingly struggled with the quality of materials coming from MRFs in recent years.

Hidden factors within comingling

Our view is that Waste Data Flow (WDF) inherently undercounts contamination and gives makes comingling systems appear better than the end result actually warrants. For example:

- Most comingling systems also collect commercial materials at the same time. While this is probably a good thing for practical reasons, it does not help when comparing the results from different systems. Commercial recyclables can still be collected in a kerbsort area, just differently. If WDF figures are used to compare systems, some allowance should be made for this factor.
- Process residues from reprocessors are not taken into account. When a tonne of paper is sent to a mill for pulping, no account is made in WDF of the degree of contamination in the paper, so a load with no contamination will count for the same as a load with say 7% contamination. What is worse, is that for every percentage point of contamination, a further 2 - 3% of pulp may be removed with the contamination. This would be experienced as a piece of plastic film for instance, covered in paper pulp weighing two, three or four times heavier than the original piece of plastic.

When the MRF regs come into action in October, it should be possible to remove the weight of contamination within bales of material from the reported recycling figure, as they will be recorded in the process.

- Dealing with MRF residues. The 'out-throws' from MRFs are often moved from MRF to MRF for further sorting. A facility may record this as a material in their figures rather than as a waste product, leading to under-reporting of waste generated from MRFs. This is a matter that should be considered when applying the MRF regs.

The Bryson model

We completely concur with the Welsh Government that the best way to achieve high levels of recycling and the best social, environmental and economic outcomes, will be through a form of kerbsort recycling. What is now emerging, from two Northern Irish trials is a very interesting model that manages to achieve the key policy objectives of the Welsh Government.

I have attached a presentation that gives details of a key trial to 4000 houses in Newtownabbey NI. Please note that this is being independently evaluated by Wrap at present, and the results I state below are provisional.

In summary however, we carried out the following:

- Weekly collection for recyclables using the new wheelie boxes (trollibocs in Conwy) collecting a very wide range of recyclables including plastic bottles, pots tubs and trays, cardboard and cartons.
- Fortnightly collected residual waste wheelie bins reduced from 240 to 180 litres

The general principle is that if you provide people with the best possible recycling system, it is possible to reduce residual waste capacity, and save money on both disposal and collection costs while maintaining very high levels of satisfaction. We have not yet trialled the approach in an existing comingled area, and this is an area we would like to investigate.

Provisional results from the trial are indicating that with no other changes and using a control, recycling levels increased by 25%, residual waste decreased by 25% and waste arisings appear to have dropped by around 8%. Participation increased by 15% points. A postal questionnaire to all resulted in 35% of the 4000 houses responding. 98% said they were happy, very happy or neither happy or unhappy with the kerbside service, and 93% said they were happy, very happy or neither happy or unhappy with the new container. These provisional results showed that recycling rates from materials collected from the household only, (residual 'black bag' waste, composting and dry recycling collected from households), increased from 45% to 55%.

It is interesting to compare the results of an earlier trial in Castlereagh NI, where 850 houses were also given wheelie boxes. In this case, there was no change to the residual waste collection provision. Tonnages increased by 10%, participation by 13% points, and 40% of householders responded to the survey, giving an approval rating of 94%.

Our own modelling would show that the cost of this model, in the case of Newtownabbey would make a modest saving of around £2-3 per house per year. The Council could chose to

collect residual waste in the existing 240l containers and collect every three weeks. This should have a similar, possibly better, impact on recycling rates, as residual capacity is 80 litres per week rather than 90 litres. It would also save the cost of the residual bin change, and make direct savings on residual collection costs. We estimate that this would improve savings by a further £5.50 per house per year, giving an approximate saving of £280k per year from an authority of just 36000 houses. Note that these are our own figures, and not those of the Council. Wrap are carrying out an independent economic appraisal of the option and this information will be released in due course.

It is clear at this stage that it is feasible to make substantial savings in the system as a whole, keep householders relatively happy, and increase recycling rates substantially.

It is noticeable from the slides attached that the comparison with other local authorities some of whom operate comingled systems, shows the Newtownabbey trial results (extrapolated across the borough) significantly outperforming all other approaches. It is worth noticing that most of the other councils do not yet collect glass from the household, so the addition of this by any means would improve their figures substantially, however our calculations show that even if they do collect glass, the results are likely to be very similar to the wheelie box if residual waste were treated in the same way. The difference though is that while the data may appear to be similar, the risk of restricting residual capacity at the same time can only exacerbate quality issues at the MRF.