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Summary of response to “Towards Zero Waste– One Wales: One Planet”

Prepared by Public Interest Consultants

The consultation report asks whether we support the strategy’s ‘zero waste’ approach with a long-term aim of zero waste and ‘one Wales: one planet’ by 2050, and a medium-term aim of 70% recycling across all sectors by 2025.

This response concludes that the proposed Welsh Waste Strategy, and particularly the 70% headline municipal waste recycling target, is moving in the right direction, but as it currently stands it will not deliver the necessary contribution to the “One Wales: One Planet” goal.

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Summary of response to “Towards Zero Waste– One Wales: One Planet”

In Brief:

The proposed Welsh Waste Strategy, and particularly the 70% headline municipal waste recycling target, is a good start but will not deliver the necessary contribution to the “*One Wales: One Planet*” goal. Far greater emphasis is needed on waste reduction with targets being set. For many reasons, including the lack of flexibility in a time of great change, incineration should be excluded as an option. The inclusion of incineration and ash recycling seriously risks undermining the progressive recycling targets and the levels of waste reduction that are necessary. This is not a true “Zero Waste” strategy whilst incineration is included as an option. The Strategy is not consistent with the requirements in Wales (but not now in England) to demonstrate the ‘Best Practicable Environmental Option’ or comply with the ‘proximity principle’.

Alan Watson, of Public Interest Consultants, will be submitting a detailed response on behalf of Friends of the Earth Cymru but groups and individuals are recommended to make their own submissions as well. It is hoped this summary will provide a useful guide to those submissions.

The Main Consultation Documents:

1. Towards zero waste
(<http://wales.gov.uk/docs/desh/consultation/090429wasteconsultationen.pdf>)
2. Future directions for municipal waste management in Wales
(<http://wales.gov.uk/docs/desh/consultation/090429wastefuturemunicipal.en.pdf>)
3. Kerbside recycling in Wales
(<http://wales.gov.uk/docs/desh/consultation/090429wastefuturemunicipal.en.pdf>)
4. Direct and variable charging for residual waste from householders
(<http://wales.gov.uk/docs/desh/consultation/090429wastechargingen.pdf>)
5. Ecological Footprint impact of the Welsh Waste Strategy
(<http://wales.gov.uk/docs/desh/consultation/090429wasteecologicalfootprinten.pdf>)

Supplementary Consultations:

WAG is also consulting on a proposals for a charge on single use plastic bags
(<http://wales.gov.uk/docs/desh/consultation/090629wastecarrierbagen.pdf>)

This could play a useful educational role in the move towards waste reduction.

The Treasury is consulting on the change of landfill tax rate for incinerator bottom ash which would increase the tax rate to that of ‘non-hazardous’ (rather than ‘inactive’) waste. This would significantly increase the cost of incineration and should be supported – though with the comment that it does not go far enough as some of the bottom ash is likely to be hazardous waste:

(http://www.hm-treasury.gov.uk/d/Budget2009/bud09_landfill_tax_964.pdf)

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Summary:

Targets:

The targets proposed in the Welsh Assembly Government consultation are:

TARGET FOR EACH INDIVIDUAL LOCAL AUTHORITY:	TARGETS FOR EACH TARGET YEAR				
	09-10	12-13	15-16	19-20	24-25
Minimum levels of reuse and recycling / AD (or composting) for municipal waste	40%	52%	58%	64%	70%
Minimum levels of AD (or composting if currently committed to this technology) of source separated food waste from kitchens as part of the combined recycling/ composting target for municipal waste above.	-	12% (statutory)	14% (indicative)	16% (indicative)	16% (indicative)
Maximum level of energy from waste (net) for municipal waste	-	-	42%	36%	30%
Maximum level of landfill for municipal waste	-	-	-	10%	5%
Maximum level of residual household waste per inhabitant per annum	-	295kg	258kg	210kg	150kg

The targets, and current performance, for other waste streams are:

PROPOSED TARGETS IN WELSH WASTE STRATEGY				
Waste stream	Current performance	2015/16	2019/20	2024/25
Municipal	32%	58%	64%	70%
Commercial	37%*	60%	71%	77%
Industrial	59%*	63%	67%	70%
Construction/ demolition	85%**	na	90%	na

* Figures from Environment Agency survey of commercial and industrial waste in Wales 2007, due to be published shortly; ** 2005/06 figures

England’s 2007 waste strategy set a target for just 50% recycling or composting by 2020. While both Wales and Scotland are well ahead of England in terms of ambition neither go far enough. Parts of Europe, including in Flanders and Germany are already achieving recycling rates of more than 70%. There is no reason not to adopt targets of 70% by 2015 and 80%, which the 2007 review by Eunomia Consultants [1] confirmed would be the most cost effective option, by 2020.

The recycling rates proposed for Wales should be brought forward from 2025 and linked with statutory waste reduction targets.

Waste Reduction – the weakest link:

The Assembly’s long-term aim is to create by 2050 a "zero-waste" society - defined as one that "produces no waste in the long term by designing products and services that reduce or reuse waste as far as possible". To achieve this means reducing the ecological footprint of

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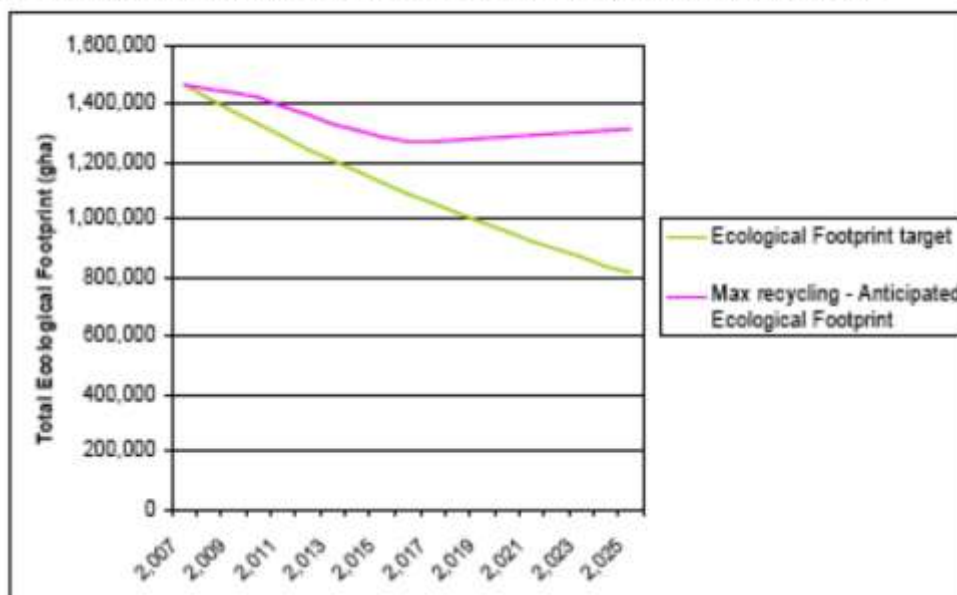
Wales to a fair ‘earthshare’ of 1.88 global hectares/capita from the 2003 level of 5.16 global hectares/capita.

Whilst the Ecological Footprint approach has been criticised it can provide a useful indication of the scale of the problem and how effective policy proposals may be at achieving truly sustainable outcomes. It does not remove the need for consideration of climate change independently and these linkages have been addressed in detail in the earlier submission to WAG on the Climate change strategy – High-level policy statement consultation which has recently been circulated to groups.

Applying a target to 2050 is certainly beyond the term of office - and in most cases the lifespan - of current politicians. It is a meaningless date save that it implies a political acceptance that Wales will remain unsustainable for at least a further four decades. This is not an acceptable policy and much greater emphasis should be placed on earlier achievement of the target which is necessary if Wales is to be sustainable and equitable. Furthermore, without a detailed plan to deliver it and high level political endorsement it simply represents environmental rhetoric.

One of the most helpful consultation documents is that by Arup assessing the ecological footprint associated with the waste strategy (ref 5 above). This emphasises that to be able to significantly reduce the size of the ecological footprint “*it is fundamental that **recycling becomes an option for waste management only after reduction and reuse***” (emphasis in the original). The report shows that with recycling alone, even at the relatively high rates proposed, the total impact of waste arising will only be reduced by 10% for municipal waste, 6% for commercial and industrial waste and 14% for construction and demolition waste, based on a 2007 baseline. This is best illustrated graphically and the figure below, taken from the Arup report, shows how even 70% recycling by 2025 fails to meet the ecological footprint target unless accompanied by significant waste reduction:

Figure 22: Comparison of the reduction in EF that can be achieved through the targets in the proposed waste strategy versus that required to reduce the EF to sustainable levels

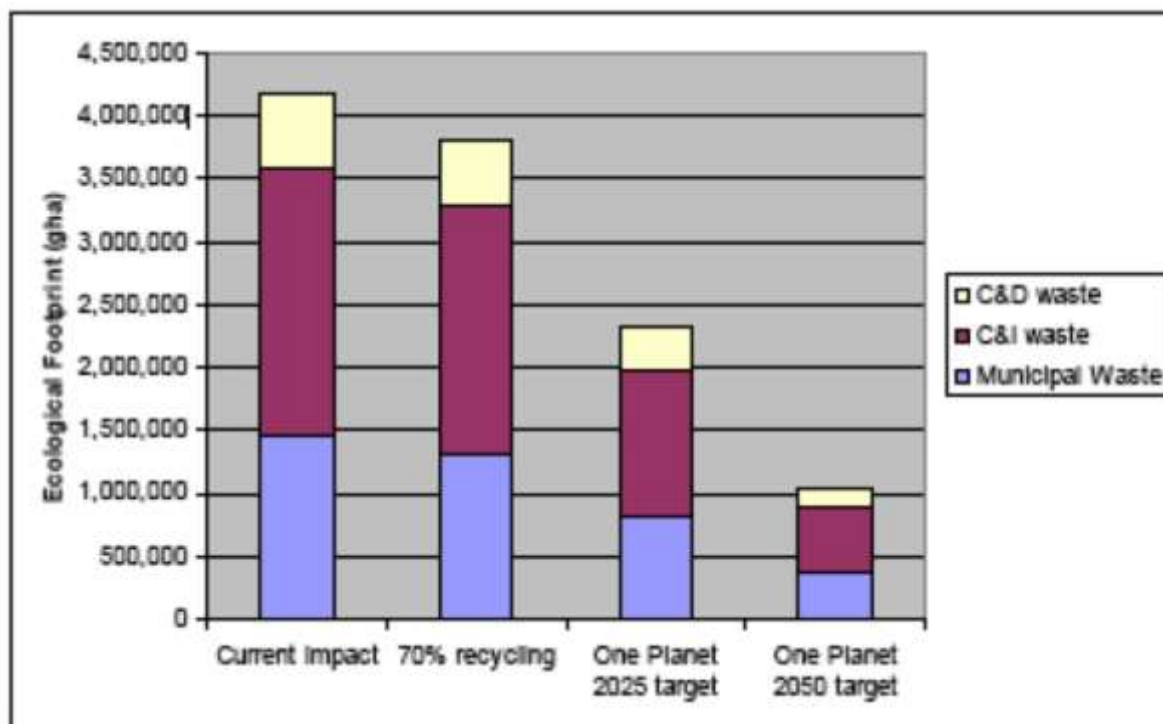


Furthermore this report confirms “*although the proposed recycling targets will help to reduce the EF [Ecological Footprint] of waste that can be recycled, research suggests that high statutory recycling targets can lead to local authorities focussing on recycling at the expense of waste prevention.*”

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The authors recommended “**WAG set targets to reduce both the total volume of waste arising in the municipal waste stream and the total volume of household waste generated per capita**” (emphasis in original). WAG did not follow their consultant’s advice.

Again this may be best illustrated graphically:



The current proposals include two options of reducing waste by just 9% (option 1) or 21% (option 2) in the 16 years to 2025 but then suggest that the next stage will be to reduce waste arising by a further 43% (or 31%) in the 25 years from 2025 to 2050. Leaving the bulk of the necessary waste reduction to the next generation is a classic example of “cheating on our children”. Both options would miss the One Planet 2025 target shown above by a large margin. To reduce the Ecological Footprint to sustainable levels even by 2050 will require a further reduction in the footprint, on top of the current recycling targets, of:

- Municipal waste - 34% by 2025 and 65% by 2050.
- Commercial and Industrial waste - 39% by 2025 and 69% by 2050
- Construction and Demolition waste - 28% by 2025 and 59% by 2050

These should be the minimum targets set in the strategy. It is imperative to focus primarily on waste reduction as the central message that should be sent to WAG and is a primary reason that incineration is not a suitable component of the policy framework.

Recycling and Incineration:

A key difference between the current targets and those proposed in 2007 [1] is that whilst the consultation still proposes at least 70% of waste in Wales should be recycled or composted by 2025 this now includes counting the use of incinerator ash use as ‘recycling’ . This is an option which has recently been rejected in England.

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The ‘Future Directions’ Document explains the detail of this change saying:

With a net limit of 30% of MSW going to EfW, and assuming that authorities rely on recycling residue to just meet, and not exceed, the 70% recycling target, and assuming that bottom ash is around 20% of the waste input to an energy from waste plant, then the Welsh recycling rate of 70% would be comprised of 63% recycling prior to EfW and 7.4% from the residue: $63\% + (20\% \text{ of } 37\%) = 70.4\%$ [70%]. The net amount recorded as being converted to energy would be 29.6% [30%]. This would give a gross amount going to EfW as being a maximum of 37%, with a maximum achievable recycling rate of 70%. The recycling rate would be made up of 63% front end collection of dry recyclables and garden/kitchen waste and 7% recycled ash residue.

This calculation makes the unrealistic assumptions that all residual waste could be incinerated and that that all the ash is re-usable. In practice less than 50% of ash could be used. Furthermore there is now good evidence that a significant portion of the bottom ash would, like the fly ash¹, be hazardous waste. There are no suitable landfill sites for these residues in Wales and they would need to be exported to England. This offends the proximity principle and Tan 21 [2] which highlights the commitment to self-sufficiency for disposal in Wales and says “*Reducing hazardous waste is a priority because its treatment, transport and disposal need careful management and demands high levels of resources in view of the potential to pollute the environment*”.

It is foolish for the proposals to include higher incineration rates of 42% in 2015 with the anticipation of reducing them to 30% in 2025. The higher levels would certainly be used to argue need for large facilities such as those proposed by Viridor at Cardiff and Covanta at Merthyr Tydfil. Once approved it would be extremely difficult, or impossible, to secure the lower future thresholds or to meet the waste reduction targets necessary for the One Planet goal.

The Scottish Waste Strategy proposals places a 25% cap on Energy from Waste² and the Scottish Environment Protection Agency says that incinerators in Scotland must achieve a high efficiency level within five to seven years or face enforcement action [3]. They say “*Large, inefficient incinerators are to be rejected*”. Our other near neighbour, Ireland, is in the process of issuing a Ministerial Direction which will introduce an incineration levy together with very stringent controls on incineration³. The WAG proposals are that all energy-from-waste plants should “*as far as possible*” achieve a thermal efficiency of 60%. Without any statutory force this requirement is weak but, if enforced, it would require plants to generate both electricity and useful heat. It is recommended that any consultation response should suggest that, in the event that arguments for a ban on incineration are not

¹ More correctly described as “air pollution control residues”

² <http://www.scotland.gov.uk/Topics/Environment/waste-and-pollution/Waste-1>

³http://www.letsrecycle.com/do/ecco.py/view_item?listid=37&listcatid=217&listitemid=52522§ion=waste_management and see consultation document at: <http://www.environ.ie/en/Environment/Waste/PublicationsDocuments/FileDownload.20544.en.pdf> with the full consultation report at <http://www.environ.ie/en/Publications/Environment/Waste/WasteManagement/FileDownload.20552.en.doc>

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incorporated in the final version, then statutory requirements should be included for any incinerator to meet a minimum thermodynamic efficiency of 60%⁴.

The relative inflexibility of incineration is likely to be a key barrier to the effective implementation of the level of waste prevention that is necessary to achieve the One World goal. Mechanical Biological Treatment is a far more flexible approach and allows biological treatment to be realigned to cleaner compost/ digestion outputs. The proposals blight these alternatives by proposing “to explore a potential ban on land-spreading non-source separated treated municipal waste from 1 April 2016”. This would inevitably undermine proposals for alternatives which include this option and increase uncertainty associated with MBT. The consultation should review the issue now and reach conclusions that can be used as a stable basis for development in time to meet the 2016 and 2020 targets of the Landfill Directive. Depending upon the quality of the input material the MBT residues could be used for land spreading; remediation of contaminated sites; landfill cover (where they are effective at oxidising methane emissions [4] and thus reducing climate impacts). Whilst not favoured there is also the back-stop option of using these residues in cement kilns as they are likely to be cleaner than the petcoke currently used and they displace fossil fuels more efficiently than in incineration.

Further observations:

Approximately 37% of commercial waste was recycled in 2007 according to a recent Environment Agency survey [5]. WAG sees a 77% recycling and composting rate for commercial waste as “feasible” by 2025, but asks whether a 70% target would be more appropriate. The urgency of the challenge requires the higher target.

The targets set for industrial waste and construction and demolition waste are not particularly challenging given their current performance. Greater emphasis should again be placed on waste reduction.

The proposals require that Councils lower the level of residual waste produced per head per year to 150 kilograms by 2024/25. This is a completely inadequate substitute for a waste reduction target as it can be met simply through the recycling targets (see page 50 of the Ecological footprint report).

The consultation is very weak on detail of how any of the targets will be met. There are general comments about the need to improve collection systems so more waste is separated at kerbside rather than in recycling facilities and says the government will try to sign voluntary agreements with industry sectors to improve recycling rates and encourage the use of recycle in manufacturing. Detailed proposals will, it says, only be revealed in “individual sector plans” which will be drawn up at a later date⁵.

ENDS [6] reported that one main reason for the lack of detail is that Wales has few legislative powers over waste. Draft legislation was laid in the House of Commons at the

⁴ Note this is not the efficiency in the Annex to the Revised Waste Framework Directive (EC 2008/98) which is not a true measure of thermodynamic efficiency nor is it based on a percentage efficiency .

⁵ Four plans are proposed 1) municipal waste; 2) the waste industry; 3) construction and demolition firms; and 4) retailers. Subsequent plans may be issued for food and drink manufacturers and public sector bodies such as schools and hospitals.

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end of April that aims to give the Welsh Assembly Government powers on environmental issues which, if passed, would allow legislation to be enacted specifying what materials councils and businesses must collect and even require the introduction of variable charging for waste collection and disposal.

An analysis by Waste and Resources Action Programme of the benefits of different collection systems was issued alongside the consultation. This says sorting recyclables at the kerbside is better than co-mingled collections and gives net cost of kerbside sorted collections as about £11 per household per year, compared with more than £25 per household for co-mingled collections. Carbon emissions are also about 20kg per household lower a year.

Whilst those promoting incineration claim that the dioxin problems have been solved they invariably ignore the large concentrations of dioxin in the residues – and particularly the dioxin in the ash from the air pollution control system. The Stockholm Convention is an international treaty which has the goal of the elimination of dioxins, where this is possible. The Convention is incorporated into European law by Council Regulation (EC) 850/2004 [7]. This should be implemented in Wales through the Persistent Organic Pollutants Regulations 2007 [8]. These regulations require that that “*priority consideration*” should be given to processes which do not generate persistent organic pollutants⁶ including dioxins. The consultation contains no reference to the requirements of this legislation but it is important that strategic consideration should be given to these obligations at this stage. The implementation of the Regulations cannot be left wholly to the Environment Agency, as in the past, as they take a very limited interpretation of the range of alternatives that they consider in Environmental Permit Determinations.

Conclusion

Earlier this month Congressman Dennis Kucinich⁷ said (in relation to the proposed American Clean Energy and Security Act of 2009):

“Today’s bill is a fragile compromise, which leads some to claim that we cannot do better. I respectfully submit that not only can we do better; we have no choice but to do better. Indeed, if we pass a bill that only creates the illusion of addressing the problem, we walk away with only an illusion. The price for that illusion is the opportunity to take substantive action”.

The sentiment can equally be applied to the current proposals. Given the extended preparation period; the spin accompanying the launch; and the volume of supporting paperwork that has been produced⁸, the outcome is rather disappointing. Wales, too, must do better.

The consultation closes on 22nd July 2009.

⁶ Defined for the purposes of the regulations as chlorinated dioxins, hexachlorobenzene, PCBs and PAHs

⁷ <http://kucinich.house.gov/News/DocumentSingle.aspx?DocumentID=134813>

⁸ Much of which contains large areas of colour which add nothing to legibility but increase waste from printing.

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End Notes:

1. National Assembly for Wales, *Future Directions For Municipal Waste Management In Wales - A Paper For Discussion*, WAG, Editor. 2007.
2. Welsh Assembly Government, *PLANNING POLICY WALES Technical Advice Note (Wales) 21 WASTE NOVEMBER 2001*. 2001.
3. Scottish Environment Protection Agency (SEPA), *SEPA's Thermal treatment of waste guidelines 2009*. 2009.
4. Einola, J.K.M., K.M. Sormunen, and J.A. Rintala, *Methane oxidation in a boreal climate in an experimental landfill cover composed from mechanically-biologically treated waste*. *Science of The Total Environment*, 2008. **407**(1): p. 67-83.
5. Scholes, P., E. Areikin, and A. Davey, *Survey of Industrial & Commercial Waste Arisings in Wales* <<http://www.environment-agency.gov.uk/research/library/publications/107692.aspx>>. 2009, WRc for Environment Agency Wales.
6. ENDS, *Wales needs powers to meet bold waste targets* *Environmental Data Services (ENDS)*, 2009. **412**: p. 31-32.
7. European Commission, *REGULATION (EC) No 850/2004 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC* NOTE: Whilst this was published in the *Official Journal of the European Union* L158 of 30th April 2004. A Corrigendum to the Regulation was subsequently published in the *Official Journal* L229/5 of 29th June 2004. 2004, *Official Journal of the European Union* L 229/5.
8. HMSO, *The Persistent Organic Pollutants Regulations 2007 Statutory Instrument 2007 No. 3106*. 2007.