



Submission to Sub-Committee I - Waste Reduction

Thank you for providing us with the opportunity to respond to the consultation on Waste Reduction being undertaken by Sub-Committee I of the Lords Science and Technology Select Committee.

NLWA is one of the six joint waste disposal authorities in England. Almost one million tonnes of London's municipal waste arises in our area per year, making us the second largest disposal authority (by tonnage) in the UK.

The NLWA has also agreed a Waste Prevention Implementation Plan with our constituent boroughs. This plan identifies actions that the NLWA and constituent boroughs can take to reduce waste arising in North London, including home composting, furniture re-use and awareness programmes.

In-line with the instructions of Sub-Committee I that "*Witnesses are encouraged to focus on those issues of which they have particular knowledge or experience-submissions are not required to cover all questions*", NLWA has not prepared an answer to all questions posed.

Thank you once again for the opportunity to respond to this consultation and if you require clarification on any of the points raised, please do not hesitate to contact me.

16th October

1. Better design and the use of materials

What role can better design and materials play in minimising the creation of waste?

Design to reduce waste

- 1.1 Better design and material choice plays a key role in minimising the creation of waste not just at the point of disposal, but throughout a product's lifecycle. This is in line with the concept of Integrated Product Policy which considers whole of lifecycle impacts, and takes actions to reduce those impacts where it is most effective. The UK Government Sustainable Development Strategy 'Securing the future' also recognises the importance of considering lifecycle impacts and "closing the resource loop" through re-use, re-manufacture and finally recycling.
- 1.2 We would urge the Committee to heed the work of the Waste and Resources Action Programme (WRAP) on the development of lightweight wine bottles which highlights the potential to reduce a product's environmental impact throughout its lifecycle www.wrap.org.uk/retail/materials/glassrite.html. Reducing the average weight of wine bottles reduces not only the amount of raw material needed for production and the amount of waste disposed, but also the amount of fuel required to transport the bottles from manufacture, filling, retailing and disposal. It can also deliver cost savings due to the reduction in transport fuel use, raw materials and energy used in production, thus delivering both environmental and economic benefits.
- 1.3 The lighter bottles have also been designed to achieve their weight loss while maintaining the appearance of a traditional wine bottle and still being suitable for use on existing beverage processing lines. This helps overcome delays associated with production lead-time and process tooling, which represent medium to long term commitments by manufacturers. These lead times can limit the ability of manufacturers to quickly react to new materials and research, leading to a time lag before benefits can be realised.
- 1.4 WRAP has compiled a searchable database of international examples of innovative design and material choices, along with a database of packaging types used in the UK. These databases, which show information on packaging weights and issues surrounding the new design or material, can be found at:
 - www.wrap.org.uk/retail/tools_for_change/international_packaging_study/index.html
 - www.wrap.org.uk/retail/tools_for_change/uk_best_in_class/index.html

Design for easier recycling

- 1.5 Better design and material selection of components can also allow easier recycling at the end of the product's useful lifetime, in turn reducing residual waste. For example, plastic bumpers and under-car protection panels can be made up of a mix of many types of plastics. This mix of materials makes it more difficult or even impossible to separate and recycle at the end of its life. If the bumper and protection panels are constructed from a single type of plastic (a "mono-material system"), recycling them at the end of the vehicle's useful life is a much easier and economically viable proposition.

Realising the benefits of better design

- 1.6 However, the adoption of new designs and materials must be carefully considered to ensure that potential waste reduction benefits are realised. One example is the recent rise in the use of biodegradable plastic bottles. While these biopolymers offer the potential for lighter packaging and can biodegrade under certain conditions, they can contaminate the recycling of conventional plastics if they are accidentally mixed. Separating the two types of plastics requires investment in infra-red technology at materials recycling facilities or better education of the public, who are currently told by many councils simply to recycle “all plastic bottles”. As the use of biodegradable plastic grows, this is likely to become a bigger issues for plastics recyclers and councils. For more information, visit:
www.wrap.org.uk/downloads/Biopolymer_briefing_final_6th_Sep.b2a4e72b.pdf
- 1.7 While the packaging industry may indicate a material is “recyclable” by placing a recycling symbol on it, this does not automatically indicate that it is recyclable within the UK. While a material may be theoretically recyclable, collection and processing difficulties, value for money issues or lifecycle environmental issues may result in no recycling infrastructure being provided to the public for this material. One example is yoghurt pots, which are marked with a recycling symbol but are constructed from a plastic not commonly recycled in the UK. This situation can lead to contamination problems for reprocessors and frustration for the recycling public, rendering certain materials as practically not recyclable, even though they theoretically are recyclable. Some form of regulatory control of the use of either the term “recyclable” or a new logo that would inform the public reliably as to the genuine practical recyclability of different materials in the UK may be beneficial.

2. Business framework

Does the current policy, regulatory and legal framework support and incentivise the development of better, more sustainable products and processes? How is the framework communicated to businesses and what is the level of awareness and understanding among businesses?

- 2.1 The introduction of extended producer responsibility legislation has the ability to drive an improvement in the sustainability of products and processes in the future. The requirement of manufacturers to take-back their end-of-life products and reduce their packaging, which has already been implemented in some sectors, should encourage manufacturers to minimise packaging, develop products that are more durable and can be repaired more easily and ensure packaging and products can be more easily recycled.
- 2.2 The introduction of tougher material specific producer responsibility targets, particularly with sub-sets for household waste, has the potential for far greater impact than the existing system. Currently, there is no responsibility on retailers and manufacturers to ‘take back’ packaging from consumers, nor do producers have to purchase packaging recovery notes generated from the same waste (and therefore appropriate cost) as the type(s) of packing material they are making or using. As such, the general public and local authorities see little impact of the existing producer responsibility requirements on the total amount of household waste generated.

- 2.3 It is noted that on 11th October 2007 DEFRA announced a snap consultation on recycling targets for packaging for 2008 beyond. This consultation will update targets for packaging recycling under the *Producer Responsibility Obligations (Packaging Waste) Regulations 2007*. It is understood that these targets will not include targets for recovered household waste.
- 2.4 The effectiveness of producer responsibility legislation will be determined to some extent by the compliance monitoring and enforcement regime. This is highlighted by the relatively limited impact of the *Packaging (Essential Requirements) Regulations 2003* in preventing excess packaging. While these Regulations include a provision to minimise the weight and volume of packaging, this requirement is offset by considerations of hygiene, safety and consumer acceptance (ie marketing). As a result of these exemptions, it is understood that only four successful prosecutions for excess packaging had been brought under these regulations to May 2007.
(http://environment.independent.co.uk/climate_change/article2581248.ece)

3. Government policy

What is and should be the role of Government in addressing the issue of waste reduction?

- 3.1 The Waste Strategy 2007, released on May 24th, specifically acknowledges the preference of waste reduction and reuse over recycling. However, while the Strategy sets targets to reduce waste, these targets focus on a percentage reduction in household waste not re-used, recycled or composted. As such this target does not act to encourage a real reduction in the total amount of waste generated - as long as authorities increase the amount they recycle or compost, they can meet this "waste reduction" target while still increasing the amount of waste produced overall. This focus on recycling and residual waste targets does not necessarily achieve the best environmental outcome and their statutory nature ensures that the resources devoted to waste reduction in particular by local authorities may well be somewhat diminished.
- 3.2 A waste reduction target which specifies the absolute amount of residual waste allowed per household may provide a better means to target waste generation. This ensures a household (or local authority) is only allowed to dispose of a set amount of residual waste, regardless of the amount of recycling and composting that occurs. This prevents increases in residual waste being 'hidden' by even greater increases in recycling which can occur with a percentage target. Such an approach has been used in Flanders, Belgium since 1997 (see chapter 15 of the Household Waste Prevention Side Research Programme report for DEFRA <http://www.the-environment-council.org.uk/waste-prevention-policy.html>).
- 3.3 While the development of true waste prevention targets will help drive local authorities to focus more on waste prevention, this cannot be done without action from industry. Producer responsibility programmes can drive improvements in product design, help influence consumer behaviour (as the costs for improved design and materials are likely to be passed to the consumer) and will ensure that the responsibility for waste management and prevention does not sit solely on the shoulders of local authorities.
- 3.4 The Government's waste strategy should be integrated with one on materials used by industry. The multiplication of the number of materials used will inevitably add evergrowing complexity to waste management.

How does Government policy link up with European strategies and action plans?

- 3.5 There is a general public perception that the UK lags behind the EU when it comes to recycling and waste management practices. Indeed, the recently released Household Waste Prevention Side Research Programme report for DEFRA (see <http://www.the-environment-council.org.uk/waste-prevention-policy.html>) provides very detailed information on waste prevention work in the Netherlands, Germany, Switzerland, Ireland, Denmark and France which demonstrate that these countries have been implementing waste prevention programmes for many years.
- 3.6 Ironically, while the UK is perceived to lag behind Europe in terms of recycling and waste prevention, it is often accused of “gold plating” EU directives (ie adding on additional requirements that other EU countries don’t have) by some sectors. One means to address both the concerns of the public that the UK lags behind Europe, as well as the desire of businesses for a level playing field within Europe, would be to ensure that the UK leads debate on new waste prevention approaches (such as absolute waste prevention targets). This would ensure the UK is pro-active in the development of new waste prevention policies, whilst ensuring that EU Member States all meet equivalent regulations and requirements in the future.

What lessons can be learnt from other countries - within the EU and globally?

- 3.7 Industry driven voluntary codes of practice play an important role in helping an industry sector demonstrate its environmental and social responsibility. However, because they are voluntary they only cover those members who are signatories and do not always capture the less ‘progressive’ operators. This can lead to a gap between the expectations of the public and the ability of a voluntary code of practice to deliver results. In these circumstances, a statutory mechanism can play a role to ensure that the entire sector meets its social and environmental responsibilities.
- 3.8 One example where a statutory mechanism might be considered is in regard to unwanted advertising material, often known as “junk mail”. Many local authorities run “no junk mail” campaigns as part of their waste prevention work. These campaigns involve raising awareness of the Mail Preference Service (MPS) as well as providing “no junk mail” stickers to be used on letterboxes.
- 3.9 The MPS is an industry run system which many direct marketers sign up to, allowing residents to opt out of receiving addressed advertising material. However, it does not capture un-addressed material that is hand-delivered. While “no junk mail” stickers may dissuade some companies from placing their advertising in letterboxes, they currently do not carry any legal status and can be ignored with impunity.
- 3.10 This issue has been recognised in Victoria, Australia where the use of a sticker stating “no junk mail” or “no advertising material” is protected through the *Environment Protection Act 1970*. The Act makes it an offence for advertising material to be placed in a letterbox where such a sticker is on display, punishable by an ‘on the spot’ fine or a fine issued by a court.
- 3.11 The Victorian *Environment Protection Act 1970* also includes powers to require advertisers to disclose the name of the leaflet distributors and distributors to disclose the name of the depositor of the advertising material (ie the actual person who placed the item through the door). These powers ensure that a responsible party can be tracked down, and enforcement action taken.

- 3.12 The adoption of a similar approach within the UK would allow for local authority “no junk mail” campaigns to have an even greater effect and would help address one of the gaps in the MPS system.
- 3.13 There are many more lessons that can be learnt from waste prevention programmes implemented in other countries including landfill bans for specific materials, deposits on reusable beverage containers, ‘pay as you throw’ approaches, taxes on packaging and levies on disposable shopping bags. These are all detailed in the recently released Household Waste Prevention Side Research Programme report, referenced in the previous section. This report, which was prepared for DEFRA by Eunomia Research & Consulting, The Environment Council, Öko-Institut, TNO and Atlantic Consulting, provides very detailed information on waste prevention work in the Netherlands, Germany, Switzerland, Ireland, Denmark and France as well as analysis of environmental, social and economic impacts of specific waste reduction policies.

4. Consumer behaviour

How can better product design be used to effect a change in consumption patterns and behaviour?

- 4.1 The UK Government’s Sustainable Development Strategy ‘Securing the Future’ (2005) devotes a chapter to the considerations needed to help people make more sustainable choices in their lives. The importance of government engaging, encouraging, enabling and leading by example are all identified as essential to achieve real behaviour change.
- 4.2 The Sustainable Consumption Roundtable, run between the Sustainable Development Commission and the National Consumer Council, finished its work in May 2006. Its final report “I will if you will” (www.sd-commission.org.uk/publications/downloads/I_Will_If_You_Will.pdf) also provides detailed information on actions to help promote sustainable consumption amongst the public, businesses and government.
- 4.3 On a more practical level, improvements in product durability generally provide the opportunity for reduced consumption. For products that perform a function that has remained relatively unchanged, an improvement in durability leads to reduced product turn-over and less waste. A good example of such a product may be a kettle - a durable older kettle stills fulfils the same role as a new kettle.
- 4.4 However, product durability is unlikely to be as high a consideration for consumers in sectors where the functions of the product have changed and expanded quickly. Examples of these products are mobile phones and personal music players (eg ipods), where technology is rapidly developing. An older mobile phone doesn’t usually fulfil all the same roles as a new mobile phone (may not have a camera, may not have Bluetooth etc). In these circumstances, the durability of the product is less of a consideration for consumers as they are likely to replace the product within a relatively short space of time anyway.
- 4.5 One product design option that may help address this issue is improved upgradeability, expandability and reparability. If a durable product can be adapted to new developments in technology by having a single component replaced, rather than the whole item, this may help reduce waste tonnages. If a product can be repaired when something goes wrong, rather than being thrown out for a new product, this can also help reduce waste tonnages.

- 4.6 Retrofitting new operational components to durable products is common in some sectors. For example, in some countries exhaust particulate filters have been retrofitted to diesel vehicles to help them comply with new emission standards, avoiding the need to purchase new engines or whole vehicles. Even the switch to digital television broadcasts in the UK, which will occur between 2008 and 2012, includes an option to upgrade existing televisions using a small set-top box. This will help prolong the life of many televisions that would have otherwise been scrapped in favour of those with a digital receiver.
- 4.7 Extended producer responsibility also plays an important role in product design and in-turn consumption behaviour. If a manufacturer is required to design their product to minimise its waste and ensure its recyclability, they are likely to make significant investment research and development. The cost for this research will in turn be passed onto the ultimate polluter - the consumer who demands the product. This potential rise in the cost of products may prompt the consumer to reconsider the need for the purchase and may result in them placing a higher value on more durable items as they seek to minimise their medium to long term financial outlay on the product.

What role do marketing strategies play in influencing more sustainable design?

- 4.8 Marketing strategies can play a key role influencing sustainable design and production, driven from both the consumer side and the manufacturer and retail side. Consumer side demand is often initiated by campaign organisations and pressure groups who raise awareness of particular social and environmental issues that can be affected by purchasing decisions. Examples of such marketing campaigns include the support for free range eggs and the support for fair-trade products.
- 4.9 As consumers are made aware of the environmental and social issues surrounding these products, they can choose to alter their shopping choices. This in-turn creates a demand for products that manufacturers and retailers react to, investing in more sustainable products. Such campaigns have seen a large growth in the sale of free-range eggs and organic products in recent years.
- 4.10 Manufacturer and retail side marketing ultimately has the same final outcome - an increased demand for sustainably designed and manufactured products. In these circumstances however, the demand for these products is initially driven by a manufacturer or retailer trying to establish an advantage over competitors. Examples of such marketing include Toyota promoting the hybrid drive system for their Prius and Lexus branded cars and the marketing of Marks and Spencer's "Plan A".
- 4.11 Government has a limited role in influencing manufacturer and retailer side marketing, they can promote the potential commercial benefits of switching to sustainable products to companies, but their main ability to influence is through economic or legislative instruments. The role of government to raise public awareness of key environmental and social issues is more obvious and has the potential to drive real change in consumer demand for sustainable products. However, a decision to support and promote any particular product on the basis of its sustainability must be based on sound science- the promotion of a product that turns out to have a minimal or negative environmental or social benefit can undermine the credibility of future campaigns.

4.12 Consumer marketing and awareness schemes such as the “shop smart” campaigns run by many councils promote reusable bags and awareness of excess packaging. The effectiveness of such campaigns is indirectly reflected in research undertaken by WRAP for their food waste campaign, which showed that three quarters of people believe that packaging waste is a greater environmental problem than food waste.

www.wrap.org.uk/downloads/FoodWasteResearchSummaryFINALADP29_307.d145eeb8.pdf

4.13 Manufacturer and retailer side marketing and support exists, through the Government’s Envirowise programme (www.envirowise.gov.uk). This scheme provides UK businesses with “free, independent, confidential advice and support on practical ways to increase profits, minimise waste and reduce environmental impact”. While the lessons learnt from this free advice should influence the sustainable design of products, it will only capture those who choose to participate in the programme.

Are there any gaps in knowledge in this area?

4.14 The success of the national Recycle Now campaign and similar local publicity campaigns has seen the perception of recycling move from a fringe activity into the mainstream. As a result, more and more people have been encouraged to recycle products either through their local kerbside service, at near-entrance facilities or at community reuse and recycling centres.

4.15 However, while recycling has undeniable environmental benefits compared to traditional waste disposal, it is significantly less beneficial than waste reduction or product reuse. Whilst the success of both national and local recycling promotion is to be applauded, the success of the recycling publicity campaigns has seen the ‘reduce’ and ‘reuse’ messages often overlooked by the public.

4.16 As a result, there is a perception amongst the public that recycling is the best thing they can do for the environment. This can lead to a situation where excessive consumption is validated, provided the person undertakes a degree of recycling. This is reflected in the fact that total waste generated per household (including recycling) continues to rise.

4.17 Reduction can mean both an absolute reduction in consumption and a reduction in the consumption of unsustainable products. The second could be considered ‘smarter’ consumption, choosing to buy a product that will perform a job well over a longer period of life, and can be re-furbished or recycled at the end. This form of reduction can allow continued economic growth whilst still addressing the growth of residual waste.

4.18 The challenge exists to encourage reduced consumption of unsustainable products and enable the public to make educated choices. Currently it is harder to engage the public with reduction and re-use messages than traditional recycling messages, as they are perceived to involve a negative impact on lifestyle. Reduction suggests that you get less of what you want while re-use suggests making do with a second-hand item. Recycling on the other hand perpetuates the idea that you can consume what you wish, as long as it is disposed of correctly.

- 4.19 Few consumers will accept a step backwards in convenience or functionality just to reduce the amount of packaging or improve the product durability. We need to find more ways to achieve waste reduction for day to day products that people buy, whilst ensuring their lifestyles remain the same or improve. Examples of how this can be achieved already include the light-weighting of bottles (discussed earlier), refillable containers and refill stations for detergents (www.ecover.com/gb/en/Products/Dishes/Refill.htm), reusable shopping bags and the upgrading of computer components such as hard drives and RAM within the existing case.
- 4.20 We also need to know how to effectively deliver the reduction and reuse message to the community, along with the best way (not just legislation) to engage and drive improvements in product design amongst manufacturers and retailers going forward. Whilst a new Waste Strategy for England has recently been published, and Scotland already has a Waste Prevention Strategy, limited information exists regarding how best to communicate the “non-consumptive” message to the public. If we are to move to a zero-waste, low carbon economy, this will be essential.