

ZERO WASTE ALLIANCE IRELAND

Towards Sustainable Resource Management

**Submission to the Department of the
Environment, Community and Local
Government**

on

**Draft Proposals for the Regulation of
Household Waste Collection**

30 January 2014

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1. INTRODUCTION

The most recent policy document on waste, published by the Department of the Environment, Community and Local Government in July 2012, states that the new waste management policy ...

“provides a roadmap on how Ireland will move away from an over-dependence on landfill, by putting in place the most appropriate technologies and approaches to reduce waste, while at the same time maximising the resources that we can recover from waste”¹

It is stated that the implementation of this policy will “*virtually eliminate our reliance on landfill*”, despite the prediction in the same document that the annual quantity of municipal waste generated will increase by 825,000 tonnes (to 3.7m tonnes) within the next 15 years.²

In commenting on household waste, the policy document observes that:

“In European terms, the evolution and structure of household waste collection markets in Ireland is somewhat unique, in that a system of side by side competition, primarily among private sector waste collection firms, has developed. This system has strengths and weaknesses from the perspectives of the State, the consumer and the waste management industry. The current market and regulatory structures have evolved over time and now require re-evaluation to take account of emerging performance requirements at national and EU level”³.

¹ A Resource Opportunity – Waste Management Policy in Ireland. Department of the Environment, Community and Local Government. July 2012. Page 3, Minister’s Foreword.

² A Resource Opportunity – Waste Management Policy in Ireland. Department of the Environment, Community and Local Government. July 2012. Section 3.1, Page 27.

³ A Resource Opportunity – Waste Management Policy in Ireland. Department of the Environment, Community and Local Government. July 2012. Section 4.1, Page 29.

In considering household waste, the principal goals of the waste management policy and proposed new regulation system are listed as:

- Ensuring adherence to the waste hierarchy and the polluter pays principle;
- Minimising the disposal of waste to landfill;
- Maximising recoverable resources;
- Ensuring compliance with national and European policy, including the landfill Directive and the Waste Framework Directive;
- Providing for the segregation of household waste, as required by EU and national law;
- Maximising the number of households with access to a waste collection service and maximising householder participation;
- Minimising the price paid by householders, while ensuring that environmental objectives are achieved;
- Ensuring a high quality service to the householder;
- Supporting a competitive and progressive waste management industry; and,
- Meeting other social preferences such as minimising community disamenity and maximising health and safety.

The policy document also identifies areas of poor or problematic performance, including:

- low rates of householder participation in some areas;
- insufficient levels of prevention and reuse of waste;
- insufficient levels of segregation of household waste;
- pricing structures which do not incentivise sustainable behaviour;
- failure by the State to meet its legal obligations under EU law;
- potential competition and corporate governance issues;
- social and environmental failures such as illegal waste activities; and,
- insufficient or ineffective implementation of the polluter pays principle in cases where industry does not take appropriate responsibility for the end of life treatment of their products.

These problematic areas confirm the observations by the OECD a few years earlier that “*except in manufacturing, however, waste generation has not been decoupled from economic growth*”, and, “*despite improvement, municipal waste collection is fragmented and not adequately regulated*”.⁴

Sixteen months after publication of the above policy document, the Department of the Environment, Community and Local Government issued a discussion paper intended to facilitate a public consultation of the environmental regulation

⁴ OECD Environmental Performance Reviews -- IRELAND -- Conclusions and Recommendations, page 12. OECD, 2009.

of household waste collection. This was not so much a discussion document, but rather a series of questions on different themes and areas associated with household waste management, the replies to which might be used by the Department to assist the detailed development of a new regime to strengthen the regulation of household waste collection.⁵

The Department has invited comments on household waste management from interested parties, and **Zero Waste Alliance Ireland (ZWAI)** is pleased to make the following submission in response to some of the questions in the document. Not all the questions are answered, as we consider that only some of them are relevant to the objectives of ZWAI.

2. ZERO WASTE ALLIANCE IRELAND (ZWAI)

2.1 Origin and Early Activities of ZWAI

Zero Waste Alliance Ireland (ZWAI) was established in May 1999 as an alliance of anti-landfill and anti-incineration groups from many locations in Ireland, and has subsequently developed into a national confederation of local residents' groups, supported by all of Ireland's principal environmental organisations, with the objectives of:

- i) sharing information, ideas and contacts,
- ii) finding and recommending environmentally sustainable and practical solutions to the growing domestic, municipal, industrial and agricultural waste management crisis in Ireland;
- iii) lobbying Government and local authorities to implement environmentally sustainable waste management practices, including clean production, elimination of toxic substances from products, re-use, recycling, segregation of discarded materials at source, and other beneficial practices;
- iv) lobbying Government to follow the best international practice (for example, the policies and practices of countries such as New Zealand, Australia and many other countries, regions and cities which have adopted the policy of Zero Waste) and EU recommendations by introducing fiscal and economic measures designed to penalise the manufacturers of products which cannot be re-used, recycled or composted at the end of their useful lives, and to financially support companies making products which can be re-used, recycled or are made from recycled materials;
- v) raising public awareness about the long-term damaging human and animal health and economic consequences of landfilling and of the destruction of materials by incineration; and,
- vi) maintaining contact and exchanging information with similar national networks in other countries, and with international zero waste organisations.

⁵ The Regulation of Household Waste Collection -- Consultation Document. Published by the Department of the Environment, Community and Local Government, November 2013.

ZWAI initially had nearly 50 affiliated organisations and groups throughout Ireland, including all the principal environmental NGOs (An Taisce, Voice, Friends of the Earth Ireland, Earthwatch Leitrim, Earthwatch Sligo, Friends of the Irish Environment, Cork Harbour for a Safe Environment (CHASE), Kinsale Environment Watch, the Irish Doctors Environmental Association (IDEA)), and more than 40 active local groups developing and implementing new ways to address Ireland's waste problems.

In Galway, the efforts of the **ZWAI** group "Galway for a Safe Environment" had a major impact on the waste management policy of the City Council, resulting in a pilot-scale recycling initiative which spread city-wide with significant benefits.

2.2 Our Basic Principles

Human communities must behave like natural ones, living comfortably within the natural flow of energy from the sun and plants, producing no wastes which cannot be recycled back into the earth's systems, and guided by new economic values which are in harmony with personal and ecological values.

In nature, the waste products of every living organism serve as raw materials to be transformed by other living creatures, or benefit the planet in other ways.

Instead of organising systems that efficiently dispose of or recycle our waste, we need to design systems of production that have little or no waste to begin with.

There are no technical barriers to achieving a "zero waste society", only our habits, our greed as a society, and the current economic structures and policies which have led us to the present environmental, social and economic difficulties.

"Zero Waste" is a realistic whole-system approach to addressing the problem of society's unsustainable resource flows – it encompasses waste elimination at source through product design and producer responsibility, together with waste reduction strategies further down the supply chain, such as cleaner production, product repairing, dismantling, recycling, re-use and composting.

2.3 What We are Doing

Zero Waste Alliance Ireland has prepared a detailed policy document on waste management, we hold regular meetings, and we continue to lobby Government on the issue of sustainable resource management, and to express our concern at the failure to address Ireland's waste problems at a fundamental level.

In recent years, as many older landfills were closed or became better managed (primarily as a consequence of the implementation of European Directives, Irish legislation transposing these Directives, the development of a waste licensing regime by the Environmental Protection Agency, and the establishment of the

Office of Environmental Enforcement in 2003), the number of affiliated groups concerned about the adverse environmental and public health effects of landfills decreased considerably in number, and ZWAI has concentrated more on the objective of ensuring Ireland's compliance with the Stockholm Convention.

ZWAI strongly believes that Ireland, as an EU Member State, has a binding obligation under the Stockholm Convention to significantly reduce emissions of persistent organic pollutants (POPs). Merely holding our submissions at present levels, or preventing an increase in either toxicity or volume, is not an adequate response to the aims of the Stockholm Convention. Instead, Irish State organizations, including the Department of the Environment and the EPA, should implement policies aimed at ensuring very significant reductions in the emissions of POPs; and, in some situations, reducing such emissions to zero.

ZWAI further believes that Ireland should have a policy of not sending our wastes for further treatment or recycling in other countries, particularly in developing countries where local populations are being exposed to dioxins and other very toxic POPs. Relying on other countries' infrastructure to achieve our "recycling" targets is not acceptable from a global ecological and societal perspective.

In 2008, Zero Waste Alliance Ireland made a submission to the Environmental Protection Agency prior to the preparation of Ireland's draft National Implementation Plan (NIP) for the Stockholm Convention; and in 2012 ZWAI submitted observations on the Agency's draft NIP.

ZWAI continues to maintain active working relationships with Zero Waste New Zealand Trust, with the Grass Roots Recycling Network in the United States, with the Global Anti-Incinerator Alliance (Global Alliance for Incinerator Alternatives), and with other international environmental organisations.

Zero Waste Alliance Ireland is a registered charity, and a member of the Irish Environmental Network (IEN), and our directors are:

- Ollan Herr
- Sean Cronin
- Richard Auler
- Jack O'Sullivan

3. THE REGULATION OF HOUSEHOLD WASTE COLLECTION – OUR RESPONSES TO THE QUESTIONS IN THE CONSULTATION DOCUMENT

3.1 Waste Hierarchy, the Polluter Pays Principle, the Responsibility of the Producer, and Segregation of Waste at Source (Questions 1 to 10)

We agree fully with the statements in section 3 of the Consultation Document, that “*prevention is first in the priority order of the waste hierarchy*”, “*preventing the generation of waste is at the forefront of the national waste policy*”, and that “*superfluous packaging*” should be eliminated. We also support the approach that discarded items should be prepared for reuse, and that where possible such items should be repaired, to be reused by other people or organisations.

We also agree that recycling should be third in the order of priorities in the waste hierarchy, as it involves transportation and the consumption of energy to reprocess waste materials into products in order to displace the use of virgin materials.

We would place the destruction of waste materials, either by incineration or landfilling, at the lowest level in the hierarchy, notwithstanding the fact that some energy may be recovered in the incineration process, and energy may also be recovered by the capture of methane generated by the decomposition of organic materials under anaerobic conditions in landfills. During incineration, persistent organic pollutants (POPs) are released to the atmosphere; while in the case of landfills it is not possible to contain all the methane produced, and it is much more environmentally appropriate to deal with organic wastes by enclosed anaerobic digestion (with use of methane for heating or electricity generation), or by aerobic composting.

In section 4, the Consultation Document refers to the Polluter Pays Principle as a fundamental principle of environmental protection at international, EU and national levels; and the document correctly points out that this principle is “*based on the premise that waste generators or the current or previous waste holders should pay the full costs of waste management services including collection, treatment and disposal*”.

However, it is the submission of ZWAI that “*waste generators*” must include the manufacturers and distributors of products which cannot be repaired, reused or recycled; and must also include manufacturers which unnecessarily package their products in materials which cannot be reused or recycled, or where the packaging is simply excessive. It is incorrect to place the blame for waste generation solely on households, members of which may have very little or no choice but to accept the goods on offer, at a price dictated by their ability to pay.

The Consultation Document refers (in section 7) to the Producer Responsibility Initiative (PRI), noting that it “*is also a significant consideration in terms of household waste collection*” (whatever that means). However, it is clear that the responsibility is placed on the householder to “*ensure that PRI items are*

disposed of appropriately"; whereas ZWAI would strongly submit that a very large part of the responsibility should be placed on the manufacturer and the distributor to place on the market goods which are repairable, re-usable or may be recycled, and which are minimally packaged.

3.1.1 Promotion of Awareness, Information and Education to Assist Householders in Achieving Waste Prevention and Segregation at Source (Question 1)

It is our submission that waste awareness campaigns, such as "Race Against Waste" and the efforts by local authorities, have only a limited effectiveness, and must be supplemented by real and practical incentives to achieve waste prevention and segregation at source.

The policy document "*A Resource Opportunity – Waste Management Policy in Ireland*" suggests that all local authorities, whether acting alone or in groupings, will be expected to participate in Waste Prevention Demonstration Programmes. In addition, there must be a shared responsibility among local authorities, waste collection firms, the wider public sector and business community to demonstrate a significant commitment to raising awareness of the benefits of recycling.⁶

It is our submission that waste prevention and segregation at source need to be incentivised by providing practical or financial support to households which demonstrate a commitment to these objectives. Appropriate economic and social incentives are the key to the creation of the necessary structural and behavioural changes, and they should be introduced without delay; guided by the following practical principles:

- Waste is made by mixing a variety of discarded materials; therefore segregation at source is an essential pre-requisite to sustainable waste management;
- When discarded materials are mixed, the potential to re-use them is either lost or seriously reduced;
- Segregation at source reduces the need for sorting or reprocessing, diverts materials from landfill, and could contribute to the economy by providing used materials at a lower cost to various enterprises and industries;
- Segregation of discarded materials at the household scale is an important service, and householders who provide this service should be adequately compensated;
- Dealing with the wastes we produce does not require high-technology solutions;
- It is essential that waste is considered as a community resource, and not as a bulk commodity to be removed by disposal to landfill or by incineration;

⁶ A Resource Opportunity – Waste Management Policy in Ireland. Department of the Environment, Community and Local Government. July 2012. Pages 9 and 41.

- Communities should be encouraged to handle their discarded materials responsibly;
- Communities cannot resolve the waste problem alone and should not be forced to clean up after irresponsible industries;
- Communities faced with discarded materials and objects they cannot reuse, recycle or compost have to demand that industry stops producing them; total recycling is not approachable without industry's help;
- Sustainable waste management or "Zero Waste" combines community practices such as reuse, repair, recycling, toxic removal and composting, with industrial practices such as eliminating toxics and re-designing packaging and products for the environmental and ecological demands of the twenty first century;
- Sustainable waste management brings together the need to develop sustainable communities, and sustainable industry and business;
- Sustainable waste management combines ethical practice with a solid economic vision, both for local communities and for local and national businesses. On the one hand, it creates local jobs and small scale enterprises, which collect and process secondary materials into new products, and on the other hand, it offers major companies a way of increasing their efficiency, thereby reducing their demands on virgin materials as well as their waste disposal costs,
- Sustainable waste management also upholds the principles of Clean Production and Environmental Justice (the link with Clean Production comes from the fact that as long as discards are contaminated with toxic substances the tendency will be to try 'to get rid of them' rather than reuse them; while the link with Environmental Justice comes from the fact that as long as the waste management industry must look for places to get rid of residual waste they will have to select sites for landfills or incinerators, and unfortunately all too often the sites selected for these undesirable activities are located in or close to communities which offer the least resistance).

The practical steps described above will also help to raise awareness about waste generation, the prevention and avoidance of waste, and the need for environmentally and socially sustainable solutions. It will be vital to establish a direct connection in the public mind between the cost of dealing with waste, and the economic benefits which will flow from waste prevention and avoidance. In our view, this may be best achieved by:

- ✓ Charging households by weight for collection and disposal of mixed unsorted wastes (this is already being done, but the costs should be increased); and,
- ✓ Paying households a small amount of money for every kilo of clean segregated material handed back to society for reuse, reprocessing, recycling or local composting.

Locally based recycling and repairing enterprises will generate employment and economic benefits, but the location of these facilities will need to be carefully chosen to comply with planning and development guidelines, and finally

selected after public consultation. In the recent past, a significant number of small businesses engaged in collecting and sorting waste were poorly located and irresponsibly managed, causing local nuisance and resistance to further necessary facilities. A minority of such businesses went even further along the line of irresponsibility, and became involved in the illegal dumping of wastes. Even though this type of operation has largely ceased; nevertheless, while “waste management” is seen as an activity with the potential to generate a significant cash income, it will be an attractive business for certain types of person, not all of whom are ethically motivated. It would be preferable if locally based re-use, repair and recycling initiatives were undertaken by communities, operating as not-for-profit companies, and linked to a network of recycling organisations.

The implementation of local community and neighbourhood waste utilisation and management schemes demands an approach quite different from the market-led system now commonly in use throughout Ireland. Managing waste must not be viewed as a problem, or as a means of private gain or profit, but as a comprehensive and integrated method for more effectively using valued community resources of skills and materials, encouraging people to assimilate and modify technologies to suit their own needs, improving public health and quality of life, providing employment, keeping wealth within the community, increasing productivity by re-using and recycling objects and materials, and saving energy.

The principal criticisms levelled at community-based waste management networks are that they are unviable in the face of globalisation; their small-scale activities are no match for the power of mechanisation, economies of scale and international operations of global corporations; and that a sufficient degree of long-term commitment cannot be found in local communities to maintain such schemes.

These criticisms miss the point that local recycling and other forms of community waste management operate more effectively and at a lower cost than larger enterprises in the small-scale and diverse environment of individual households, neighbourhoods and small commercial firms. Large companies operating in the “waste management” field are at an advantage only when waste is not considered as a community resource, but as a bulk commodity to be removed by disposal to landfill or by incineration.

For biodegradable waste, locally-based composting schemes offer significant advantages. A research project funded by the EPA⁷ showed that community composting presents an opportunity to micromanage some of Ireland’s organic waste at source, supporting key environmental sustainability principles and encouraging public engagement. The report notes that, in contrast to Ireland, community composting is a highly developed activity across Europe – in 2006 over 1,800 plants were in operation throughout Europe with an annual capacity of more than 17 million tonnes of biodegradable waste. However, current

⁷ Miller, S., Wilson, A., and Warburton, R. 2009. Implementation of an Urban Community Composting Programme. STRIVE Report (2005-WRM-MS-34-M1) Prepared for the Environmental Protection Agency by The Rediscovery Centre, Ballymun. Published by the Environmental Protection Agency.

activity in Ireland at the time when the research was undertaken is limited to less than 50 composting facilities, primarily dealing with biodegradable waste from gardens such as grass cuttings and plant leaves (otherwise known as garden waste).

The project concluded that:

- ✓ In-vessel composting technology is economically and technically viable for small-scale organic waste processing and can result in volume reduction of up to 87%;
- ✓ Urban composting projects can bring significant social, environmental and economic benefits to urban communities;
- ✓ Effective education is paramount to the success of community composting initiatives;
- ✓ Small-scale in-vessel composting can be employed to produce quality compost, which will meet compost quality standards, such as the proposed industry-led Quality Standard for Source-Separated Biodegradable Material Derived Compost;
- ✓ The use of waste-derived compost in horticultural applications can lead to increased growth rates and improved soil quality; plant response is dependent on nutrient content and compost stability;
- ✓ There is a local market demand for waste-derived compost; and,
- ✓ Community composting initiatives, if established in all apartment developments in Dublin alone, have the potential to divert 14,680 tonnes of organic waste from landfill each year.

In other words, a win-win-win approach, in which the environment, the local community, the economy and society as a whole will benefit.

If the above philosophy of designating waste as a community resource is promoted, householders would realise that their discarded materials constitute a valuable resource which, if handled properly, could reduce their living costs and improve their communities. However, appropriate local waste management schemes and infrastructure need to be developed together with the necessary levels of promotion, education and support. By involving communities in designing a local materials collection scheme, the objectives of awareness raising and positive action can take place simultaneously and can support each other.

3.1.2 Mixed or Commingled Collection Service for Dry Recyclables (Question 2)

This question asks how household waste collection could be improved so as to increase the quantity and quality of discarded materials available for recycling or recovery.

We have partly answered this question in section 3.2 above, by suggesting that discarded materials should be designated as a community resource, used for

the benefit of local communities and the environment, and that financial and practical incentives should be given to increase segregation at source.

Proper segregation implies that “dry recyclables” should not be commingled or mixed during collection, and that any reusable materials or objects should be treated separately. For example, in some other European countries which would serve as good examples for Ireland to follow, five or more different bins are provided for different types of material to be collected, while a deposit is charged on re-usable beverage containers, and the person returning the container is entitled to receive back the deposit.

In Germany, a purchaser takes empty beverage containers to the supermarket and returns them to the cashier, who counts the containers and pays the corresponding refund to the purchaser. A trained cashier can easily identify the kinds of containers for which the purchaser is entitled to a refund. The cashier loads the containers into a plastic bag, which is forwarded to a central counting centre normally operated by an independent enterprise. The origins of the containers are identified, the containers are counted, registered and sorted by a high-speed counting machine, and the total refund is paid to the supermarket which forwarded the containers (also called the “inter-clearing process”).⁸

It is therefore our submission that the Repak levy should be removed from consumer beverage containers, and a beverage container refund scheme put in its place, i.e., people who purchase beverages would pay a refundable deposit on each container, and this deposit would be refunded when the item (clean and empty glass bottles, PET bottles or PE containers) was returned.

3.1.3 Introduction of More Stringent Requirements for Segregation of Household Waste (Question 3)

This question asks if local authorities should be given the flexibility to introduce more stringent requirements for the segregation of household waste.

It is our submission that local authorities should be given such flexibility, as it would encourage an innovative approach by local authorities to introduce on a pilot-scale, schemes such as the community composting project described in section 3.2 above, or the five-bin segregation of discarded materials in households.

However, in order for such an approach to be effective, it is essential that local authorities and communities retain control of their discarded materials; and any more stringent requirements should be designed so that they facilitate such materials being treated as a resource, and an asset for the community. This can be best achieved by providing adequate compensation to householders who undertake discarded material segregation in their homes.

⁸ <http://anker-andersen.com/deposit-laws/germany.aspx>

3.1.4 A requirement that all household waste collection firms should provide a (i) residual waste collection, (ii) a recyclables collection, and (iii) an organic bin collection where appropriate; i.e. a 3-bin collection system (Question 4)

This question asks if it would be preferable for the above requirements to be included as 'binding obligations' in national legislation instead of being attached as conditions in particular functional areas, and if non-compliance with the requirement should result in possible revocation of the waste collector's permit.

It is our observation that compliance with the above requirements should be binding obligations in national legislation, to ensure a "level playing pitch"; and that adherence to this requirement should also be applied to community waste collection and recycling schemes. We would also recommend that penalties should be introduced for mixing organic waste with recyclables in a bin designated for dry recyclables collection, or for putting organic waste in a residual waste bin.

However, we would also suggest that waste collection firms and community operated schemes which provide a better service, i.e., which demonstrate a level of service above the minimum, should be adequately rewarded in some specific way.

We would suggest that all waste collectors – community and private – should be required to operate transparently, providing information on the types and amounts of waste collected, destinations of all wastes (including recyclables and re-usable materials), and the environmental cost of the collection process. This information should be readily available on the waste collector's website in the form of an ecological footprint, by which users of the service can clearly see what is happening to their discarded materials, and whether the service provider is operating efficiently in environmental terms. In this way, real comparisons are possible, and not merely comparisons based on economic indicators.

An example of this approach comes from Finland, where the "*Tuotewiki Project*" provides information allowing householders and consumers to trace the ecological footprint of products purchased, used or discarded. This project, which has been on-going since 2007, provides a "Wiki" or internet-based encyclopaedia, run mainly by volunteers associated with an environmental NGO named "Dodo" (<http://www.dodo.org/english/>), and guided by a Steering Group on which sit representatives of the Finnish Ministry of the Environment, the Finnish Standards Association, Finland Futures Research Centre, the Finnish Grocery Trade Association, the Technical Research Centre of Finland, and others. The annual budget for the project is €5,000, and the project receives financial support from the Ministry for Foreign Affairs.⁹

The project website observes that:

*Anyone can easily add and check information on Tuotewiki.
Producers, users, consumers – all of us - can become Tuotewiki*

⁹ See: http://scp.eionet.europa.eu/facts/factsheets_waste/2011_edition/factsheet?country=FI; and <http://dodo.org/uutiset/loyda-sisainen-sankarikuluttajasi> (this latter website is in Finnish).

content producers. Even a slight revision or a hint of information from the field is valuable and enlarges our understanding of the world and the products that we make and we use. In order to move towards a carbon-neutral planet, everyone, especially in the rich North, have to be able to change their ways of life and their consuming habits for more sustainable ones. For this change to take place we need information and tools. Tuotewiki is an easy way to discuss and share knowledge. It is an open database for everyone and for many different kinds of information about products.

3.1.5 Suspension or Revocation of a Non-Compliant Operator's Waste Collection Permit (Question 5)

This question asks if legislation should allow action to be taken against a non-compliant operator for failure to comply with the requirements described in question 4, i.e., should the operators' permit be suspended (or revoked in serious cases).

It is our submission that all waste collectors should fully understand the need for compliance with the basic requirements, and the consequences of non-compliance. Minor infringements should attract a written warning; more serious non-compliances would lead to temporary suspension, while serious offences would be followed by revocation of the operator's permit. Minor infringements by a previously compliant operator should not be sufficient to put that operator out of business, but subsequent infringements should attract significant penalties. This aspect of the household waste management system is "*the big stick*", but it must be balanced by "*the carrot*", whereby good practice is rewarded. Transparency and an appeal system would also be essential, to promote fairness.

3.1.6 In what limited circumstances are pay-to-use compactors (PTUs) appropriate for waste collection purposes (Question 6)

We doubt if pay-to-use compactors should be encouraged in any way, as we cannot see how they would support or encourage sustainable waste management, prevent or reduce waste, or contribute to the development of a "Zero Waste" society. There are no circumstances in which public use of these compactors would be appropriate.

3.1.7 Requirement to monitor the potential contamination of collected waste, and to ensure that only household waste is collected (Question 7)

This question asks if a condition should be included in waste collection permits to require waste collectors to demonstrate how they are monitoring the potential contamination of waste streams being collected, and ensuring that other waste streams (such as PRI waste with other dedicated collection systems) are not being disposed of through the household waste collection service.

Our observation is that if a waste collector is entitled to collect only household waste, and no other discarded materials, that collector's operation should be monitored to ensure compliance with the relevant permit. However, if a scheme operated by a community also collected or accepted a wide range of household goods which were being discarded as "out of fashion" or nearing the end of their useful lives, and the scheme included repair or reuse of some of these items, it would not be harmful if the collection included some discarded goods for which the producer had responsibility (PRI "waste").

However, since it is the producer's responsibility to ensure that such items are taken back free of charge, the community scheme should be able to obtain payment (refund of deposit) from the producer for undertaking this service.

3.1.8 Measures to virtually eliminate landfilling of waste by 2020 (Question 8)

This question requests comments on a number of measures to help implement the policy of virtually eliminating landfill by 2020 – a serious challenge, given that some 53% of (managed) household waste was disposed to landfill in 2011.

3.1.8.1 *Application of Landfill Bans on Particular Waste Materials at this Time or in the Future? (Question 8a)*

We would agree with a measure to ban particular waste materials from landfills, beginning with all materials which are currently recyclable or compostable, but extending the range of materials banned, as other ways of re-using or recycling these materials become available.

However, it is important that environmentally acceptable alternatives should be widely available to the majority of the population, whereby banned materials can be collected from households or accepted at suitable sites. We suggest that the appropriate infrastructure must be in place to allow people to return useful discarded materials in a way that is not overly inconvenient. A ban on landfilling certain materials will be successful only if coupled with the provision of such alternatives.

3.1.8.2 *Further Increases in the Landfill Levy? (Question 8b)*

We would agree with further increases in the landfill levy, provided that such increases do not contribute significantly to the cost of living, and that the increases are absorbed by more environmentally efficient waste collection schemes.

It is also very important that all funds collected by the operation of the landfill levy go to the EPA for research support, or to local community groups involved in repair, reuse and recycling of discarded goods.

The Department will be aware that, on 01 July 2013, the Minister for the Environment, Community and Local Government increased the landfill levy by

10 euro to 75 euro per tonne for each tonne of waste disposed of at authorised and unauthorised landfill facilities.¹⁰ However, there is no levy on waste which is incinerated, as a previous attempt by the Government to impose such a levy was defeated by intense lobbying by certain sections of the waste management industry and by the State's enterprise development agencies, i.e., the IDA, Forfás and Enterprise Ireland.

The 2007 Programme for Government¹¹ had stated that *"we will not alter the landfill levy in such a way as to give a competitive advantage to incineration"*, from which it might be assumed that a levy on incineration was being considered. It was therefore not unexpected that, on 19 November 2009, the Department of the Environment issued a statement by the Minister for the Environment, stating that *"earlier this year the Government also decided to introduce an incineration levy. While the actual rate of the levy will need to relate to the rates of landfill levy which I have just announced, I do envisage that the incineration levy will be in the range of €20 to €38 per tonne"*. However, the incineration levy never materialised; as, in 2010, the State agencies mentioned above vigorously opposed any increase in the landfill levy and the introduction of an incineration levy, on the grounds that these would damage Ireland's cost competitiveness and lead to a loss of jobs.¹²

Surprisingly perhaps, submissions by the waste industry (in particular the submissions by Indaver Ireland¹³ and CEWEP) did not oppose the introduction of a levy on the incineration of waste, but suggested that it should be applied on an increasing scale, rising over a period of time. CEWEP did not oppose an incineration levy, but urged that the Government should take a *"conservative approach in setting any levies for [energy] recovery operations, providing for a long phase-in period, and monitoring the impacts carefully to ensure [that] compliance with the [waste] hierarchy is maintained"*.¹⁴

ZWAI does not believe that incineration should have a significant role to play in the disposal of household waste, despite the description of incineration by its promoters as "recovery" or "waste to energy" plants. In fact, the mass burning of municipal and household wastes is capable of recovering only a small proportion of the energy that went into the processing of the raw materials and the manufacture of the discarded materials constituting the waste. Incineration creates toxic emissions to the atmosphere and a toxic ash which must be landfilled in a toxic waste landfill. Therefore, we submit that incineration should be placed at the base of the waste management hierarchy, on a par with landfilling.

¹⁰ The Waste Management (Landfill Levy) (Amendment) Regulations 2013 (SI No. 194 of 2013).

¹¹ Department of An Taoiseach, 2007. *An Agreed Programme of Government: A Blueprint for Ireland's Future, 2007–2012*.

¹² Consultation on Waste Facility Levies. Forfás, IDA Ireland and Enterprise Ireland: Submission to the Department of the Environment, Heritage & Local Government, April 2010.

¹³ Submission by Indaver Ireland to the Department of the Environment, Heritage & Local Government, April 2010.

¹⁴ CEWEP Ireland Response to Sections 6 & 7 of the Draft Environment Bill, 2010; April 2010.

For the above reasons, we submit that our recommended increase in the landfill levy should be matched by the imposition of an equivalent levy on incineration of waste. Furthermore, it is our understanding that incinerator ash deposited in a landfill does not attract the current landfill levy, i.e., the ash is exempt from the levy. If this is the case, we would strongly urge that this exemption should be removed, and that incinerator ash should be subject to the same levy as municipal waste and household waste when deposited in a landfill.

3.1.8.3 *Removing the Exemption from the Landfill Levy for Further Waste Materials? (Question 8c)*

No wastes deposited in a landfill, for whatever purpose, should be exempted from the landfill levy, unless it can be clearly demonstrated that there is an ecological or environmental advantage to using such materials in a landfill for a particular purpose, e.g., by avoiding the use of virgin raw materials. In the recent past a wide range of wastes have been used for “engineering purposes” on landfills, e.g., wood chips, construction and demolition waste, and even certain types of waste from end-of-life vehicles.

If the goal of eliminating the landfilling of waste is to be achieved, it would be appropriate to have no exemptions from the levy (and incinerator ash should not be exempt from the levy, as argued in section 3.1.8.2 above).

3.1.8.4 *Legislative Support for Enforcement by the EPA of Landfill Gate Fees and Financial Guarantees for Licensed Facilities (Question 8d)*

Such a measure might be appropriate, but we consider that these matters are best left to local authorities, with the EPA providing support and monitoring, to ensure that the local authorities were carrying out these enforcement functions effectively. Any necessary financial guarantees could be incorporated in planning conditions.

3.1.9 *Economic or other instruments to encourage the development of recycling and recovery infrastructure within the State; and measures to prevent the export of household waste (Question 9)*

These are two very important issues which we will address separately.

ZWAI has always believed that economic instruments should be introduced to encourage the development of recycling and recovery infrastructure within the State. Such instruments can take many forms and may easily be applied, provided that they are non-discriminatory, i.e., they should be applied equally to products which are imported or which are manufactured in this country.

For example, a lower VAT rate could be applied to any product or item on sale which was manufactured using a high proportion of material derived from a recycling process, or which was designed to be easily dismantled, repaired, re-used or have its components recycled. Conversely, a product or item which was manufactured from virgin raw material and which could not be repaired or

recycled at the end of its useful life would attract a higher VAT rate. Depending on the degree of recyclability and /or the proportion of recycled material used in the product, a sliding scale of VAT could be published and implemented. Any changes would have to be made no more frequently than annually, so as to give manufacturers and distributors some degree of certainty.

We envisage that the scheme would work in the following way (or similar). A manufacturer or distributor who placed on the Irish market items which are non-recyclable and non-repairable would have any price advantage (given that his product might be cheaper) outweighed by the higher VAT rate; while a product or item designed to be repairable, and which would be taken back by the manufacturer or distributor for factory refurbishment, re-use of components and recycling of non-reusable parts, would have his higher costs offset by the lower VAT rate. In this way, "*the playing pitch would be levelled*" to remove the current competitor advantage enjoyed by cheaper throw-away non-recyclable products.

In a submission to the Department of the Environment, Heritage and Local Government in 2010, An Taisce proposed a similar scheme – that a high rate of VAT (30% was suggested) should be placed on products which cannot be fully recycled or reused; while tax benefits (a 10% VAT rate was suggested) should be given for certified "green" products, i.e., products designed to fully or easily reused, recycled or composted.

Of course it would be better if such a system would be agreed at EU level, but it could be tried in Ireland on a pilot scale, provided that it was not weighted in favour of Irish goods. In the future, it might be possible to adjust the VAT rate on the basis of the "*ecological footprint*" of each product, based on manufacturing data, life cycle analysis and "*product-miles*" (i.e., the environmental impact of transporting the product from manufacturer to user).

Another measure which we suggest is that companies engaged in recycling should be able to secure a resource stream of discarded materials for a fixed and minimum period of time, so as to provide a degree of stability to encourage investment and ensure business stability. This could be achieved by setting mandatory regulations for recycling contracts.

The second part of this question addressed the need for measures to prevent or limit the export of household waste, and we must assume that this question includes the need for measures to limit or prevent the export of either mixed or segregated recyclable materials derived from household waste.

Given our view that household waste and the raw materials which it contains should be regarded as a community resource, it follows logically that exporting such materials is a loss to the community and the State, not to mention the adverse environmental cost of transportation and the high probability that these materials reach their final destination in a country where workers are more likely to be exposed to unhealthy conditions during the recycling process, and where environmental regulations are less strict or are simply not enforced. Unfortunately, as noted by the OECD, "*Ireland continues to rely substantially on*

*foreign infrastructure for recycling and disposal, sending abroad over 80% of the total waste and almost half of the hazardous waste generated*¹⁵.

A more recent report by the European Environment Agency noted that *“recovery of Irish municipal waste is dominated by the export market. For ferrous metal wastes and paper and cardboard wastes, export for recovery abroad represents more than 99 % of the total”*. The EEA report also noted that *“the vast majority of dry recyclables in Ireland are exported for recovery due to lack of recycling facilities”* and *“China is also the second biggest direct importer of Irish municipal wastes streams”*.¹⁶

The unfortunate effects of this failure to encourage domestic recycling facilities are that the economic viability of waste separation facilities in Ireland is subject to volatile global prices for recyclates, and significant employment opportunities are lost. In such a situation, “added value” industries engaged in reprocessing materials separated from the domestic and municipal waste streams cannot achieve the necessary degree of security required to start up new ventures or to invest in new or more efficient facilities.

We would assert that Ireland is large enough to accommodate small industries which can recycle all of the raw materials segregated from household waste, with the possible exception of recovered aluminium (which can go to an aluminium smelter in Scotland) and certain hazardous materials which constitute only a very small fraction of the waste stream. Finland, with a smaller population (5.4 million compared with Ireland’s total of 6.33 million), and a much lower density of population, has succeeded in providing the necessary infrastructure for converting recycled materials into useful products.

In Ireland, Government financial support would be essential to successfully launch such industries, or to ensure their continuing viability. Without such support, domestic recycling infrastructure would not survive against the cheaper option of exporting. And we would point out that exporting components of the domestic waste stream appears cheaper only because the full environmental costs of long distance transportation are not paid by any of the parties involved in the industry, but fall instead as environmentally damaging “externalities”.

As an example of an opportunity lost, this writer remembers when Smurfit Paper Mills at Clonskeagh in the suburbs of Dublin processed annually approximately 35,000 tonnes of waste paper to make a heavy kraft paper which was then used to manufacture cardboard cartons. No toxic chemicals were used in the process, the raw materials were sourced locally and the product was used in the Greater Dublin area. In the 1990s, the management of this paper mill expressed interest in building a new larger capacity paper mill on a greenfield site. Government financial support would be needed, it was not forthcoming, and the Clonskeagh paper mill closed down, being unable to compete with imports of similar paper from countries where its manufacture was subsidised by their respective governments.

¹⁵ OECD Environmental Performance Reviews IRELAND -- Conclusions and Recommendations, OECD 2009.

¹⁶ Municipal Waste Management in Ireland. European Environment Agency, Prepared by David Watson, ETC/SCP; February 2013.

As an example of what could, and should, be done in Ireland to encourage the development of recycling and recovery infrastructure within the State, and to prevent or limit the export of household waste, we can do no better than quote the example of what has been achieved in Nova Scotia, a Canadian province.

In 1989, Nova Scotia sent 641,375 tonnes of waste – 726 kg per person – to landfills and incinerators, but by the year 2000 had succeeded in diverting 46% of its waste from landfills, as a result of a comprehensive “**Solid Waste Resource Management Strategy**” developed by government action, citizen involvement, and industry support. The strategy was designed to ensure that the people of Nova Scotia “*receive the maximum environmental and economic benefits while minimizing the potential increases in the cost of managing solid waste.*”

Initially, the province’s municipalities contributed significantly to the capital and operating costs associated with collecting and managing recyclables, organic materials and waste; but, in addition to the municipal systems, a Resource Recovery Fund Board (RRFB), a non-profit organization, was established to operate the bottle deposit, tyre, and paint recycling systems in the province. The RRFB transfers portions of its profits from recycling programmes back to municipalities through diversion credits, based on the rate of diversion for each solid waste-resource management region. The RRFB also funds approved programs, and invests in value-added manufacturing related to the recycling industry.

The new waste-resource management system appeared to come with a heavy price tag caused by increased operating costs. However, an economic review carried out in 2004 showed that traditional accounting methods (like those used in Ireland) had failed to consider the full economic, social, and environmental costs and benefits resulting from the major changes in the management of Nova Scotia’s solid waste.

A report prepared by GPI Atlantic in 2004¹⁷ showed that, from a full cost accounting point of view, the Nova Scotia solid waste-resource system has produced very large net savings when compared with the previous system of landfilling waste. The new system has more than paid for itself from a full cost-benefit perspective, while producing new jobs and substantial environmental benefits. Significant benefits included direct and indirect employment; reduction of greenhouse gas emissions; reduction of air pollutant emissions; extended landfill life; avoided costs of siting, constructing and operating new landfills; avoided compensation; increased export revenue from environmental goods and services; additional tourism numbers and revenue; energy savings from recycling, and the availability of funding for approved programs and investment in value-added manufacturing related to the recycling industry.

Based on diversion rates (diversion of waste from landfills) and other waste management data, Nova Scotia became a leader nationally and internationally in waste diversion. At an international level, Nova Scotia’s waste diversion rate

¹⁷ The Nova Scotia GPI Solid Waste-Resource Accounts – Executive Summary. GPI Atlantic, July 2004.

is among the highest in the world when compared to waste diversion rates in OECD countries.

3.1.10 Further measures to give effect to the waste hierarchy in the context of household waste collection (Question 10)

This question asks if further measures (additional to those measures previously discussed) would be necessary or desirable to ensure that the waste hierarchy is fully implemented for household waste collection.

As pointed out in our introductory reply to questions 1 to 10 (the beginning of section 3.1 above), we emphasised our agreement with one of the statements in section 3 of the Consultation Document, that “*prevention is first in the priority order of the waste hierarchy*”. However, this emphasis must be seen in the context of two basic principles of **Zero Waste**, which we quoted in section 2.2 above:

- *In nature, the waste products of every living organism serve as raw materials to be transformed by other living creatures, or benefit the planet in other ways; and,*
- *Instead of organising systems that efficiently dispose of or recycle our waste, we need to design systems of production that have little or no waste to begin with.*

This approach is also referred to as “**The Circular Economy**” or the “**Cradle to Cradle**” model, first advocated by German chemist Michael Braungart and American architect Bill McDonough. The Cradle to Cradle Design model considers that all material involved in industrial and commercial processes can be seen as nutrients, of which there are two main categories: technical and biological:

- a) Technical nutrients include only those materials that do not have a negative impact on the environment (so non-harmful synthetic ones are accepted, while toxic non-biodegradable materials are banned); and,
- b) biological nutrients are organic and can be returned to the soil without specific treatment to decompose and eventually become food for the ecosystem.

What we need are “completely healthful products that are either returned to the soil or flow back to industry forever”, according to McDonough and Braungart.¹⁸

More recently, these two authors have refined their ideas in a new book “*The Upcycle: Beyond Sustainability — Designing for Abundance*”, a follow-up to Cradle to Cradle, in which William McDonough and Michael Braungart imagine

¹⁸ William McDonough and Michael Braungart, 2002. *Cradle to Cradle: Remaking the Way We Make Things*. North Point Press.

how human society might, at last, begin to rewrite its role in the history of the natural world.¹⁹

The circular economy is a generic term for a similar type of industrial economy that is, by design or intention, restorative; and in which material flows are also of two types: biological nutrients, designed to re-enter the biosphere safely, and technical nutrients, which are designed to circulate at high quality without entering the biosphere. It is the antithesis of the current linear economy, based on “*Take, Make and Dispose*” industrial processes and the lifestyles that feed on them, which are depleting finite reserves to create products that end up in landfills or incinerators.

In January 2012, a report was released entitled *Towards the Circular Economy: Economic and business rationale for an accelerated transition*.²⁰ The report, commissioned by the Ellen MacArthur Foundation and developed by McKinsey & Company, examined the economic and business opportunities for making a transition to a restorative, circular model of industrial production. Using product case studies and economy-wide analysis, the report described the potential for significant benefits across the EU. It argued that a subset of the EU manufacturing sector could realise net materials cost savings worth up to \$ 630 billion p.a. towards 2025 — stimulating economic activity in the areas of product development, remanufacturing and refurbishment. *Towards the Circular Economy* also identified the key building blocks in making the transition to a circular economy, namely in skills in circular design and production, new business models, skills in building cascades and reverse cycles, and cross-cycle/cross-sector collaboration.

The concept of a Circular Economy was also taken up by the European Commission which published in December 2012 a document entitled *Manifesto for a Resource Efficient Europe*.²¹ This manifesto clearly stated that “*In a world with growing pressures on resources and the environment, the EU has no choice but to go for the transition to a resource-efficient and ultimately regenerative circular economy.*” Furthermore, the document highlighted the importance of “*a systemic change in the use and recovery of resources in the economy*” in ensuring future jobs and competitiveness, and outlined potential pathways to a circular economy, in innovation and investment, regulation, tackling harmful subsidies, increasing opportunities for new business models, and setting clear targets.

It is our submission that making the transition to a Circular Economy is both obvious and necessary, and technically possible. Further delay in making such a transition will almost certainly result in unmanageable resource, ecological, food security and climate change risks. One of the first steps in making the transition is to re-consider the waste hierarchy, and eventually to abandon it in favour of the systematic prevention of waste.

¹⁹ William McDonough and Michael Braungart, 2013. *The Upcycle: Beyond Sustainability — Designing for Abundance*. North Point Press.

²⁰ *Towards the Circular Economy: Economic and business rationale for an accelerated transition*. Ellen MacArthur Foundation. 2012.

²¹ *Manifesto for a Resource Efficient Europe*. European Commission, Memo/12/989, 17 December 2012.

The Circular Economy's objective of designing out waste from the outset so that no materials ever leave the industrial cycle leads us to question whether the traditional cornerstone of waste minimisation -- the waste hierarchy -- is in need of a fundamental overhaul. Instead, we need to eliminate waste production by material substitution, redesign of products, new business models or setting up systems for return or recycling.

If applied to household waste production, the Zero Waste or Circular Economy model would completely change the way in which products for household or personal use are designed, manufactured and distributed. All organic waste would be composted, while used products would be repaired and re-sold by specialist firms, or taken back by the manufacturers.

For example, the electronics manufacturing company Kyocera designs its printers and copiers for disassembly so that they can be taken apart with a single screwdriver, but when they are channeled through the WEEE (waste electronic and electrical equipment) compliance framework, they are bulked up with other equipment from different manufacturers; re-processors cannot differentiate between the various items of equipment, and the result is that most of the equipment ends up shredded with precious metals lost.

Therefore, in answer to the question of what further measures are necessary or desirable to ensure that the waste hierarchy is fully implemented for household waste collection, we would submit that the waste hierarchy itself needs a fundamental review, as it has served its purpose, and should be replaced by a more viable model based on a zero waste circular economy.

However, the transition will take considerable re-thinking and effort, and funding to research new approaches to design and manufacture. Such funding may become available through the **Horizon 2020** programme, which replaces the **FP7** funding programme. Of the €80bn that will be available for research over the next 7 years, 60% should be used for research on making the transition to a sustainable zero waste circular economy. This would present a powerful opportunity for Ireland to develop a better understanding of how these newer models can be implemented.

3.2 Mandated Service Levels (Questions 11 to 13)

3.2.1 Is it necessary for the introduction of further mandatory segregation at source of household waste (e.g. paper, metal, glass, plastic and glass) at this time (Question 11)

The infrastructure for further segregation at source should be provided and introduced on a pilot scale initially. A best practice example in this instance is Germany where waste is separated into 5 different categories at a household level: non-recyclables, organic, paper, light packaging, and glass²². This system should be piloted in Ireland and gradually rolled out if successful. The

²² http://www3.mpifr-bonn.mpg.de/old_mpifr/imprs/downloads/downloads/Waste%20disposal.pdf

materials involved are easily reusable, providing more value to the economy in the form of materials.

A further possibility is that a Pilot Scheme could be tried out in Ireland for collecting different types of recyclables during different time periods throughout the month.

We suggest that consideration should be given to collecting a greater number of pre-sorted separated waste streams by allocating recyclables which we can refer to as type A, B and C on the first week, D, E and F on the second week, G, H and I on the 3rd week and J, K and L on the 4th week. A local community scheme could be trained to make a few hundred rotating drum composters. If the local community also practised home composting, it would result in the following being collected:

- Organic Waste -- 80% to 100% home composting; with the balance of the composting being done at a community level;
- Resources A, B and C- collected every 1st week;
- Resources D, E and F – collected every 2nd week;
- Resources G, H and I – collected every 3rd week;
- Resources J, K and L – collected every 4th week; and,
- Dry residual to landfill would be greatly reduced.

Recyclables type A B and C would be collected in separate see-through bags to avoid cheating. As we can encourage people to separate a larger number of waste streams in their kitchens, the cleaner the waste streams will be. A follow through must be made between the education on recycling in the Green Schools and the recycling habits in the kitchen at home.

Zero Waste in conjunction with An Taisce could promote the idea first to test a community's willingness to undertake this higher level of resource recovery. A successful recycling project that was well embedded in a local green school might be the perfect platform for further expanding the deeper recycling idea in to the wider adult community.

3.2.2 What are your views on the following collection frequencies being mandated in national legislation (i.e. non-compliance with the below minimum requirements will result in action being taken against a household waste collector seeking to have their permit revoked) (Question 12)

3.2.2.1 *Household waste collectors to provide a mixed dry recyclables collection at least every fortnight (Question 12a)*

3.2.2.2 *An organic bin collection to be provided at least every fortnight, in accordance with the European Union (Household Food Waste and Bio-waste) Regulations 2013 (Question 12b)*

3.2.2.3 A residual waste collection to be provided no more frequently than the collection of the organic bin (Question 12c)

See our response to question 11 above (section 3.2.1).

3.2.3 Any other issues in relation to mandated service levels (Question 13)

None that occur to us at present.

3.3 Pricing Structures (Questions 14 to 22)

3.3.1 Should the practice of household waste collection companies charging a single flat rate fee (annual or other periodic fee) be expressly prohibited in legislation given that the practice appears to run contrary to the ideals of the polluter pays principle and the waste hierarchy? (Question 14)

We consider that the practice of charging a flat rate fee for waste collection should be prohibited, as it provides no incentive to separate materials or divert them from landfill

3.3.2 Given the overwhelming arguments in favour of the per kilogram weight form of pay-by-use, on what basis should it be introduced and what are the appropriate transitional arrangements (Question 15)

Some household waste collectors already employ a pay-by-weight system, and an appropriate transitional arrangement would be a “pay-per-bin” collected. If we make the reasonable assumption that a householder will not submit a bin for collection until it is full, or nearly full, a “pay-per-bin” system would approximate to a pay by weight system. However, in the longer term, pay-by-weight will be essential.

3.3.3 In order to incentivise source segregation of organic waste by householders in the brown bin, how can the charging system be designed and structured so as to avoid wilful consignment of non-organic material to the brown bin? (Question 16)

Frequent inspections, and fines for wilful consignment of non-organic material to the brown bin. If the householder receives a small payment (by weight) for clean segregated non-organic recyclable materials, there should be no incentive to place these materials in the brown bin.

3.3.4 Should a ‘pay per weight (per kg)’ charging system be mandatory for household waste collection, how can the balance between the variable cost ‘pay per weight (per kg)’ element of the charge and

the fixed cost (standing charge) element of the charge be best achieved (Question 17)

The pay per weight system should be mandatory, and the basic financial viability of such a system would be ensured by a tax on product packaging both at a retail and importation levels. Further financial support could be provided by a tax on the products themselves, based on the proportion of virgin materials used in production, and on the extent to which the product may be repaired, reused or recycled when discarded by the first purchaser. This would provide a disincentive to consumers to purchase items with excessive packaging, or to purchase items with a high level of virgin raw materials in their manufacture, and which are non-repairable and/or non-recyclable. These financial measures would provide the necessary revenue to ensure a basic level of service

3.3.5 Traditionally in many instances the dry recyclate bin has been provided 'free of charge' by waste collection operators. Do you consider it appropriate that the green bin for dry recyclables should continue to be collected free of specific charge (Question 18)

The principal purpose of the "dry recyclate bin" is to provide an incentive to separate discarded materials. If there is an improvement in the degree separation that takes place (for example, 5 bins instead of 3), and it is not possible to re-use the materials then this service should have a low cost associated with it, or the bin should be collected free of charge. However, if the clean and segregated materials can be re-used or recycled, the householder should be given a small payment by weight for returning such materials to society, where they will serve as resources for productive employment.

The primary aim should be to encourage the return of materials in forms whereby they do not need to be recycled but can be reused (glass bottles for example). Therefore, if a householder is provided with the infrastructure to perform this task, no cost should be incurred and the possibility of compensating the individual should be considered. However, if materials cannot be reused, then a low-cost recycling service should be offered (as a disincentive for purchasing non-recyclable goods, or excessively packaged items).

3.3.6 What do you think of the proposal that where a standing charge is being applied, that it should be uniform, i.e. an operator would be obliged to impose the same standing charge for the provision of 3 bins or 2 bins (where the householder is disposing brown bin waste in accordance with the European Union (Household Food Waste and Bio-waste) Regulations 2013? (Question 19)

It is our submission that a standing charge should not be applied.

3.3.7 What are your views on a regulatory approach whereby non-compliance with any new pricing structure requirements would

result in action being taken against a household waste collector seeking to have their permit revoked (Question 20)

We would agree that non-compliance by the household waste collector should attract a penalty, commensurate with the severity of the offence. See our answer to question 5 above (paragraph 3.1.5).

3.3.8 Do you consider it appropriate that any new pricing structure requirements which may be introduced should apply universally and be included as binding obligations in legislation as opposed to being attached to individual permits as conditions in particular functional areas (Question 21)

Any new pricing structure requirements should be attached as conditions to individual waste collection permits in particular functional areas.

3.3.9 Any Other Issues of Pricing Structures (Question 22)

None that occur to us at present.

3.4 Fit and Proper Person (Questions 23 to 29)

3.4.1 Current legislation permits a local authority to regard a person as 'fit and proper', if it considers it proper to do so, even if the person has been convicted of a specified offence. Should a local authority still retain this flexibility or how should the circumstances whereby a person is considered as 'fit and proper' (notwithstanding the fact they have been convicted of a specified offence) be defined (Question 23)

There are two issues here: (i) should a local authority be able to consider a person as 'fit and proper', for the purpose of managing waste or obtaining a licence to collect waste, even if the person has been convicted of a specified offence; and, (ii) how can we better define or consider a person as 'fit and proper' for the purpose of managing waste, i.e., should a range of criteria be applied, other than financial and legal.

Some change is clearly necessary, as we are aware of cases in which waste management operators with bad environmental or service records have been awarded winning contracts or have submitted successful tenders for services. These records should be taken into account. See our response to question 25 below.

3.4.2 Would you consider it reasonable that a household waste collection company/operator would have their waste collection permit revoked if they amassed a designated number of specified offences or administrative fines in a specified rolling period (e.g. mixing source

segregated waste such as organic and residual waste in a collection vehicle) (Question 24)

Yes, certainly the repeated mixing or re mixing of separated waste in a collection vehicle should lead to the revoking of a licence. As a country we need to become absolutely serious about waste separation and segregation. There is a growing perception by householders that their waste collectors are mixing the waste – some form of separated waste truck design is needed so that no false impression can be formed by an onlooker that the separate waste is ending in the one compartment in the truck.

It follows also that some form of penalty should be applied to the householder for sloppy separation of their waste from their recyclables. The waste collector should not be penalised because the householder mixes the waste before it was collected to the waste collector. Cameras recording the waste as it goes into the lorry would solve this problem. There should to be a deadline (for example, 2 to 3 years) for the introduction of these cameras on all waste collection lorries in all parts of the country.

3.4.3 Should authorities be given additional powers to require collectors to furnish evidence that a person is 'fit and proper' in terms of qualifications, experience, financial provisions in relation to the company's ability to meet the financial commitments or liabilities that the EPA reasonably considers will be incurred in carrying on the activity (Question 25)

Yes, definitely. As suggested in our response to question 23, the track record of a person or company should be taken into account when awarding a contract for waste collection services. This assessment of a person's or a company's suitability should not be confined to consideration of financial viability, which is the primary basis used in Ireland for decision-making purposes. Other criteria, such as qualifications, experience, environmental performance, commitment to an environmental and social ethic, service record, customer charter, transparency in dealing with customers and the public, legal status, labour and other records, should be taken into account.

3.4.4 Is it necessary to have a specified level of both motor and public liability insurance to be considered a 'fit and proper' person (Question 26)

Any person handling waste or discarded materials for repair, reuse or recycling should have normal insurance cover against accidents, including motor and public liability insurance.

However, insurance premiums should reflect the level of risk. An excessive level of insurance cover may unnecessarily increase the cost of recycling and prevent new entrants to the resource collection business.

3.4.5 Do you agree that the technical competence of an applicant should include skills such as computer literacy for submission of annual returns? Do you think it appropriate that authorities could require a waste collector to undertake an accredited training course(s) to ensure they possess the required level of technical competence, particularly in the IT, corporate governance and record keeping fields (Question 27)

Given the track record and bad practices of some former waste collectors we believe that all commercial waste collectors in future must be completely transparent and completely tax compliant. This can happen only if the State regulates every operator to the same extent, so that there is no commercial disadvantage placed on those collectors who decide to be honest and play by the rules.

In the case of community waste disposal, composting, recycling, or reuse schemes, grants should be available to train a member of the community to oversee or manage such programmes.

3.4.6 Should there be an onus on operators to demonstrate that they are 'fit and proper' on an annual basis, such as a declaration that the operator has not been convicted of any specified offences? Are there other provisions which ought to be included in such a proposal (Question 28)

3.4.7 Are there any other issues you wish to raise in terms of only 'fit and proper' individuals/companies are allowed to hold waste collection permits (Question 29)

See our response to question 25 above; and, in addition we submit that a high degree of transparency in any waste management operation is essential to gaining public confidence and support.

For example, it would be relatively easy for every waste collector to have a website showing the various waste resource streams that are collected, possibly with a video should showing how the materials are separated, what happens in the collection centre, and how the materials are sent onto the next stage for re-processing.

All waste collectors as well as public amenity recycling centres should be positively transparent about the end use or the destination of each category of waste or resource that they handle. A householder or member of the public should be able to easily find the waste collector's website, and see where the materials collected are going for re-processing or recycling.

The public should easily be able to discover the destination (Cement Kiln or Incinerator) of any refuse derived fuel that remains from the un-separated waste; and a dedicated national website (operated by the EPA or by the Department of the Environment) should state the tonnage and destination of separated materials, the number of Irish jobs created by reprocessing the

collected materials, and the type of end use product that is re-manufactured from each of the separated waste streams.

3.5 Waste Management Collection Permit Fees (Questions 30 to 35)

3.5.1 The waste collection permitting regime in general could be reformed in terms of introducing different classes of waste collection permit (based on EWC codes) and associated suitable permit fees. Permits could be granted on a national basis rather than on a regional basis. Each class of permit would have its own standard conditions, in terms of reforming the permit fee structures generally for waste collection, including household waste collection (Question 30)

Yes we agree with the proposed reform of the waste collection permitting regime, with permits being issued on a national basis. We would add however that a distinction be made for any material that is undeniably a clean industrial resource in contrast to a separated waste stream that is still often contaminated. Resources from a well managed and supervised recycling centre will produce quite pure waste resources, whereas separated streams from the present two bin systems are often spoiled. We suggest that “Class 4” would also have a “Class 4 Pure”

3.5.1.1 *What are your views on the following classes of waste collection permit being established? (Question 30a)*

There needs to be a push towards the culture of managing clean, separated unspoilt resources. Class 1 & 4 seem to be the direction we need to go.

Other class types seem to suggest the continuing culture of managing waste that is possibly mixed or spoiled. These classes should be phased out. Is it a spoiled waste or is it a useful clean separated resource? We must go to the front of the system and insist on keeping things clean and separate. Permit holders should be pushed towards higher standards of clean resource recovery.

Class	Description	Fee
Class 1	Collection of waste for preparation for re-use (registration only)	A
Class 2	Haulage of bulked waste from authorised waste facilities (non-hazardous)	B
Class 3	Haulage of bulked waste from authorised waste facilities (including hazardous)	C
Class 4	Single code /waste type, (non-hazardous) collection e.g. scrap metal, septic tank sludge, C&D	D

Class	Description	Fee
Class 5	Single code / waste type, (including hazardous) collection e.g. oil interceptor, ELV's	E
Class 6	Multiple waste type collector (non-hazardous waste)	F
Class 7	Multiple waste type collector (including hazardous waste)	G
Class 8	Household kerbside waste collector	H
Class 9	Extended Producer Responsibility -- Recovery of beverage containers (Glass or PET) from the customer, shop or supermarket by the business that sells the product in the first place. The cost is absorbed by the business, not by the tax payer or environment. This industry should be managed as a separate entity from REPAK.	J
Class 10	Extended Producer Responsibility – Movement of paint tins, empty or full, to national paint recycler centre – funded by a paint levy on the paint industry.	K

It is unfortunate that recent and current Government policy is still excessively focused on managing waste instead of eliminating waste production at source, as suggested in our response to Question 10 (section 3.1.10 above). There seems to be very little awareness of the value of waste resource collection within an extended producer responsibility model. For example, should a business that sells milk door to door not also be incentivised to take back milk containers as well? Remember the old days with milk bottles. We believe that businesses have been allowed to externalize their waste generation costs to their customer and the tax payer

State policy should remove the competitive advantage of business who externalizes their packaging waste costs. It should instead interfere in the market by incentivising industry that sells the food or drink product that take back their beverage containers and packaging in the first place.

The Irish REPAK system doesn't work however because so few of the containers are washed for reuse and so much of the glass, aluminium and pet end up on the side of the road. Our view is that the obligations for self compliance are probably too onerous and too expensive. A review should be carried out.

The incentive must be given to those businesses who are also waste collectors and who take responsibility for their packaging waste. The cost of bottles and cans on the side of Irish roads must become a negative number on the annual accounts of those other businesses. At present it is society that pays the price.

3.5.1.2 Are there other ways of restructuring permits which you would see as more beneficial / practical? (Question 30b)

As emphasised in our introduction and in response to question 1, discarded materials are a community resource, and communities should be encouraged to handle their discarded materials responsibly. It is therefore important that any restructuring of the licensing permits or the licensing process does not exclude community groups from setting up their own, local means of dealing with waste; and preferably any such restructuring should encourage local community groups to establish their own composting service.

A decentralised mode of dealing with something as easily re-usable as household compost will be far cheaper and more effective than a centralised system once adequate education is provided.²³ In addition, a locally based system would allow residents to engage more fully with the processes required to reuse discarded materials, while also providing employment and a tangible product from which the community can benefit by using it in their households and shared gardens.

3.5.1.3 Do you think it reasonable that a cap would be set for the fees for waste collection firms who would require more than one permit? (Question 30c)

No comment that occurs to us at present.

3.5.2 Taking into account the need for the cost of a household waste collection permit to reflect the economic value of collecting the waste; the risk associated with undertaking the activity; and the cost of enforcing the permit, at what level do you think the household waste collection permit fee should be set? Should the fees be different for the various classes of Collection Permit as proposed in previous question (Question 31)

Household waste collection fees must incentivise the house owner to present higher levels of separated waste to the waste collector. At present there seems to be no positive incentive to advance towards a true "Zero Waste" for any specific type of household waste.

3.5.3 Is there merit in structuring the fee in such a way that there is a fixed element and a variable element to the fee, so as to reflect the risk associated with larger volumes of waste being collected? For instance, what are your views on the fee comprising a fixed charge price plus a variable charge (based for example on the number of waste collection vehicles used by an operator) (Question 32)

²³ Miller, S., and Wyse-Jackson, P. "Implementation of an Urban Community Composting Programme" <http://erc.epa.ie/safer/iso19115/displayISO19115.jsp?isoID=132>

If the level of the fixed fee is too high relative to the variable fee it will offer no incentive to householders to change habits and to significantly reduce the volume and weight of waste produced. Our view is that the fixed fee must be as low as possible as a proportion of the overall waste collection cost.

The charges set by Government must incentivise householders to recycle more and give an economic reason to business to move towards “Zero Waste” that effectively conserves our finite resources.

3.5.4 Is there merit in structuring the permit fee so that the enforcement cost element is clearly distinguishable (Question 33)

Yes

3.5.5 Should waste collection permits be issued only at a national level or is there still a need for regional permits (Question 34)

The majority of waste collection permits should be issued regionally, with the intention of dealing with discarded material / waste collected within that region, with the aim of discouraging the transport of waste over significant distances. A situation should not arise whereby household waste is collected at one end of the country and transported to a remote landfill simply because the gate fee was lower than at a more proximate facility.

However, there may be two exceptions:

- i) specialised licences for specific hazardous materials on a temporary basis before they are phased out or replaced by non-hazardous materials in household goods; and,
- ii) collection permits for segregated recyclable materials which may have to be transported to a specific re-processing centre (for example if Ireland had only one paper mill in the country – instead of none at present – waste paper would have to be transported from all corners of the country to that mill).

3.5.6 Any other issues in terms of waste management collection permit fees (Question 35)

No comment that occurs to us at present.

3.6 Customer Charters (Questions 36 to 40)

3.6.1 See question 28 in relation to an operator being requested to confirm annually that they have a customer charter which meets specified requirements (Question 36)

3.6.2 Are there further conditions, additional to those listed above, which should be included in a customer charter, such as the provision of better or more information to customers on preventing and segregating waste (Question 37)

Absolutely – The waste collector has an important educational role in promoting maximum segregation by householders. Waste collectors who find spoiled mixed waste in recycling bins have a duty to:

- Inform the householder on the proper way to separate waste in various bins;
- Inform the householder of the impacts of not separating properly;
- Inform the Local Authority of repeated incidents of improper waste separation by any particular household; and,
- Local Authorities should have the power to impose penalties for continued breaches

3.6.3 Do you think it reasonable that an operator would be required to make a copy of their waste collection permit available on their website (Question 38)

In the interest of transparency and public education – yes they should. A lack of transparency will make it more difficult for users of the operator's service, and other interested persons, to check whether or not the waste collector is operating within the terms of his permit.

3.6.4 What measures could be introduced to ensure that the commitments contained in customer charters are delivered? For example, should household waste collectors be obliged to publish statistics on the commitments made in their customer charters (e.g. publication of performance indicators such as the number / percentage of collections are made on-time etc.) (Question 39)

Publication of statistics will promote greater transparency, and should help users of the waste collector's service to understand where their discarded materials are being sent. Good statistics and the publication of performance indicators would also provide a benchmark against which performance could be measured, and a better service provided in all waste management areas.

3.6.5 Any other issues in terms of customer charters (Question 40)

No further comment that occurs to us at present.

3.7 Managing Nuisance and Health & Safety (Questions 41 to 44)

3.7.1 Do you think it appropriate that measures be introduced at a national, regional or local level in terms of better managing the nuisance, emissions, and health and safety risks of overlapping household waste collection networks (Question 41)

The problem with introducing competition into an area such as the provision of a basic service is that it leads either to duplication or to each service provider carving out an exclusive area operation, i.e., the formation of local monopolies. In urban areas, competition creates a duplication of services, ultimately costing more money, bringing more trucks on to the roads, all using more fuel in the process. It is of very little use to implement a market-based approach, with the aim of bringing down prices or improving efficiency, when any such apparent price reductions are negated by each operator charging similar rates, and any improvement in efficiency is lost through duplication of effort.

Therefore we suggest that the provision of waste collection services should move away from the purely competitive model. Efficiencies should be achieved, but through the operation of a well-run system that does not have overlapping service providers. Competition for the market, e.g., seeking tenders to operate services for a given geographic area for 5 years, would be much better than competition within the market (the existing model).

Part of this question addresses the management of nuisances and emissions, and we suggest that odour management should be a priority, even though the problem of odour caused by badly managed waste has greatly diminished in the last decade. Older landfills, of which we had considerable experience, were extremely smelly, producing noxious odours which seriously damaged local residential and other amenities. Modern landfills are less noxious, but not entirely free of odour.

The principal source of odour is decomposing organic material under anoxic conditions, and this can be prevented by complete separation of all food and organic waste from the rest of the household waste; so that the various other wastes can be separated and not spoiled or contaminated from the organic fraction. Where this separation of the organics has not taken place it leads to odours, rats and vermin. The separated food waste should be managed separately in enclosed municipal composting facilities located away from residential areas.

The other major emission from decomposing organic material under anoxic conditions is methane, a potent greenhouse gas; and therefore control of methane generation from household waste should be a priority.

If waste is incinerated instead of being composted and / or recycled, a third type of emission is produced, which is less frequently associated with odour and more frequently with adverse effects on public health. This is the emission to atmosphere of persistent organic pollutants (POPs) and particulates from the combustion of waste. One of the many reasons for advocating a Zero Waste

Society is our concern about the health impacts associated with incineration,²⁴ and failure by Ireland to reduce these emissions, as required by our adherence to the Stockholm Convention. While these emissions are not specifically the consequence of household waste collection networks, they are directly caused by the need to dispose of unsorted or residual wastes which have been collected.

In spite of the measurement of alarming levels of PM₁₀ particles in 2002; the decisions by the EPA to issue licences for the incineration of municipal waste at Carranstown near Drogheda amounts to a disregard for the protection of long term public health. The town of Drogheda, north-eastwards of the incinerator, and downwind from a cement manufacturing plant, is particularly vulnerable.

Ambient air pollution measurements taken by an EPA air pollution monitoring van from Feb 2002 to Jan 2003, showed that *“There were 11 exceedances of the 24 hour limit value for the protection of human health during the 100 days of the assessment period for which results are available. The Directive stipulates that the limit value must not be exceeded more than 35 times in a calendar year.”*²⁵

Our concern is that air pollution limits were probably already being exceeded in 2002, and local air quality may have further deteriorated since then. In addition, the acceptable limits are being further tightened by the EU because the previous limits have been found to be inadequate for the long term protection of human health, and the limits for PM_{2.5} and for PM₁₀ will be tightened again over the coming years.²⁶

Our view remains that the subsequent giving of a licence by the EPA for the burning of 220,000 tonnes of municipal and hazardous waste upwind of the town of Drogheda was short-sighted. Citizens are entitled to a healthy environment, and “continuous on going” measurement of PM₁₀, and PM_{2.5} at ground level in Drogheda should have been imposed as a planning condition. The Department of Environment should communicate these concerns to the EPA and to An Board Pleanála as soon as possible in advance of the long term health consequences that are inevitable.

The problems of nuisance, health and safety can also be addresses through planning. Local Government zoning should locate waste management, recycling, resource recovery, product repair, materials reprocessing, enclosed municipal composting, end of life vehicles dis-assembly and soil and aggregate recycling in special “Eco Industrial Parks” -- away from residential areas so that odours are less likely to impact on residential amenity.²⁷

²⁴ British Society for Ecological Medicine, 2008. The Health Effects of Waste Incinerators: 4th Report, Second Edition, June 2008, 71 pp.
http://www.ecomed.org.uk/content/IncineratorReport_v3.pdf

²⁵ Environmental Protection Agency. Ambient Air Monitoring in Drogheda: 19th February 2002 – 3rd January 2003; page 21.
http://www.epa.ie/pubs/reports/air/monitoring/EPA_air_assessment_Drogheda.pdf

²⁶ <http://ec.europa.eu/environment/air/quality/standards.htm>

²⁷ See: Roberts, B.H., 2004. The application of industrial ecology principles and planning guidelines for the development of eco-industrial parks: an Australian case study. Journal of

**3.7.2 Should times be specified when waste collection is prohibited?
Should this be established at a local, regional or national level
(Question 42)**

Common sense in this matter should be used.

**3.7.3 Bearing in mind the potential costs associated with upgrading
waste collection fleets and the potential knock-on costs for
consumers, what are your views on requiring waste collection
fleets to ... (Question 43)**

3.7.3.1 Operate under a certain decibel level? (Question 43a); and / or,

**3.7.3.2 Introduce compartmentalised refuse collection vehicles so that
different streams of waste can be collected by the same vehicle,
reducing the number of waste collection journeys ? (Question
43b).**

If the upgrading of waste collection fleets is likely to result in increased costs for consumers (as it probably will), then such an increase must be justified and clearly explained, preferably by showing that other benefits will result. For example, a public awareness campaign could demonstrate the broader environmental benefits of a resource recovery and recycling economy in a world where finite resources are fast running out, and the public could be informed and educated by means of newspaper articles, Eco Eye and other TV documentaries (this is already being done to some extent)

However, measures could be taken by the Department and the licensing authorities to ensure that improved waste collection does not result in increased costs being passed on to householders. And if it were shown that increased costs were justified, a system of waste collection vouchers could be given to people on low incomes who would find these costs a burden.

Given that there may be an increase in household waste collection charges, the Government should always offer options for lowering waste costs even if it requires better organization on the part of the householder. Just as the bike purchase scheme has been successful – a similar scheme for “approved” home composters, multiple waste sorting bins etc should be considered.

Given the very high recycling rates possible in public amenity recycling centres, further funding is needed for more of these centres, so that the distance people have to travel to dispose of their discarded materials is significantly reduced. It should be national policy that waste charges are never increased without a number of lower cost and environmentally friendly options being provided to encourage waste reduction, elimination of waste, and better segregation of discarded materials.

3.7.4 Any other issues in terms of managing the nuisance, emissions and health and safety risks of overlapping household waste collection networks (Question 44)

All are covered in the above questions and replies.

3.8 Householder Obligations and Awareness, and Education Measures to Support Householders (Questions 45 to 47)

3.8.1 Do you consider the introduction of fixed payment notices (otherwise known as on the spot fines) as a suitable penalty for householders who are not availing of an authorised household waste collector and who cannot demonstrate they are managing their waste in an environmentally sustainable and acceptable manner? If not, what other sanctions would you deem appropriate (Question 45)

We would suggest that instead of introducing on-the-spot fines, it would be better to develop trust between householders and all those involved in the collection and disposal of discarded materials and waste. Therefore we would suggest a transitional period during which the focus should be on education and raising public awareness, and on ensuring that all the appropriate infrastructure has been put in place. Only when those steps have been achieved, and when there is a good level of public support for waste elimination, repairing, re-use and recycling, should it be necessary to turn our attention to non-compliance and how it should be addressed.

Any system of on-the-spot fines will be difficult to judge fairly, and there would exist a significant probability of false accusations. It could also politically unacceptable when first suggested. Therefore, any system of fines should initially be tested on a pilot scale and carefully evaluated before being more widely introduced. One possible intermediate step would be to invite householders to make a household waste management plan, or to complete a questionnaire, every 5 years; and this could be integrated into the national census. The purpose of such a step would be to:

- Prompt people to develop a greater awareness of the importance of waste reduction, resource recycling and responsible waste management;
- To more accurately measure the public awareness and support of sustainable resource management;
- To accurately measure the gaps in the national resource recovery infrastructure; and,
- To accurately measure the rate of recycling for various categories of domestic waste and who what and where this waste is going.

3.8.2 What are your views on waste collection companies being required to maintain a register of household waste customers as a permit condition whereby a local authority can request the collector to verify whether a specific householder is availing of a service being provided by that operator (Question 46)

Yes we partly agree, but we believe that, from a civil rights perspective, Local Authorities should keep a permanent record of the prior justification they used in seeking this information. We have some concerns that such a register would be an unnecessary intrusion, in conflict with the need for personal privacy.

3.8.3 Other Issues (Question 47)

No further comment that occurs to us at present.

3.9 Reducing Administrative Burden (Questions 48 to 49)

3.9.1 Do you have specific proposals in terms of reducing the administrative burden for those complying with Waste Management (Collection Permit) Regulations 2007? For example, what are your opinions on ... (Question 48)

3.9.1.1 *Introducing 'binding obligations' that apply nationally in the legislation to the greatest extent possible to simplify the permitting process across local authority and regional boundaries (Question 48a)*

We would agree with a simplification of the permitting process only if this does not result in a lowering of operating standards. The priority must be to improve the system of waste collection from a societal and an environmental perspective and therefore any reduction in the administrative burden should be a secondary objective.

3.9.1.2 *Allowing operators to submit data on an on-going basis rather than making an annual return (Question 48b)*

This could be applied to the larger operators, as this requirement could be excessively onerous on smaller waste collectors.

3.9.1.3 *Publishing notices required under Regulation 6 of the Waste Management (Collection Permit) Regulations 2007 on the National Waste Collection Permit Office website rather than in national or local newspapers (Question 48c)*

Maximum transparency should be the aim – and therefore publication of legal notices in a national or local newspaper is essential. Even though access to the internet is becoming more widespread, very few people are likely to maintain a

watch on the National Waste Collection Permit Office website. We would also submit that National and Regional Waste Collection Permit Offices should accept from 3rd parties any objections, observations and suggestions; and, at a minimum, acknowledge receipt of the submission.

3.9.1.4 *Introducing greater scope for interactions with the regulatory authorities to be carried out 'on-line' (Question 48d)*

Yes, we agree. Any communication with the regulatory authorities should be possible on-line, and all significant communications should be posted on the authorities' website(s). The EPA operates a system whereby all submissions are posted immediately on the Agency's website, and payment of fees can be made on-line to the Agency.

3.9.1.5 *Making an application available 'on-line' on the National Waste Collection Permit Office rather than available for inspection at local authority offices (Question 48e)*

Yes, all applications for waste collection permits, and other permits connected with waste, should be available on-line, but they must be relatively easy to find on-line

3.9.1.6 *Introducing general binding rules for applying standard conditions to a particular class of waste collector permits, any additional requirements could be region specific rather set than at a local authority level (Question 48f)*

Yes, we agree that this is a sensible suggestion.

3.9.1.7 *Allowing permit conditions to be carried on each vehicle without the appendices, as these are readily available on the National Waste Collection Permit Office website (Question 48g)*

A citizen should be able to read the reference number – find it on the National Waste Collection Permit Office web site and access all necessary and relevant information.

3.9.1.8 *Allowing a permit holder name or permit number to be displayed on the vehicle – this would reduce the need to reprint new permit numbers on all vehicles in the case where a new permit number is issued (Question 48h)*

Yes we agree

3.9.1.9 *Making the process of application and renewal (prior to expiry) for a waste collection permit the same procedure, introduce a separate process for reviewing a permit (e.g. whether instigated by an enforcement authority on suspicion of non-compliance or the waste collector in order to surrender or transfer, or amend significantly a waste collection permit) and allow minor technical amendments to be made without the requirement of a full review (Question 48i)*

Yes as long as third parties can make submissions in advance of the final decision deadline to grant, amend or revoke a permit.

3.9.1.10 *Streamlining or better clarifying the timelines set out in the Waste Management (Collection Permit) Regulations 2007 in terms of applying for a permit, review, submitting annual return data, submissions from third parties in relation to an application for a waste collection permit, etc. (Question 48j)*

Yes we agree

3.9.2 *Other provisions in the Waste Management (Collection Permit) Regulations 2007 which could be improved / streamlined to reduce the administrative burden of complying with waste collection legislation (Question 49)*

Nothing occurs at this time.

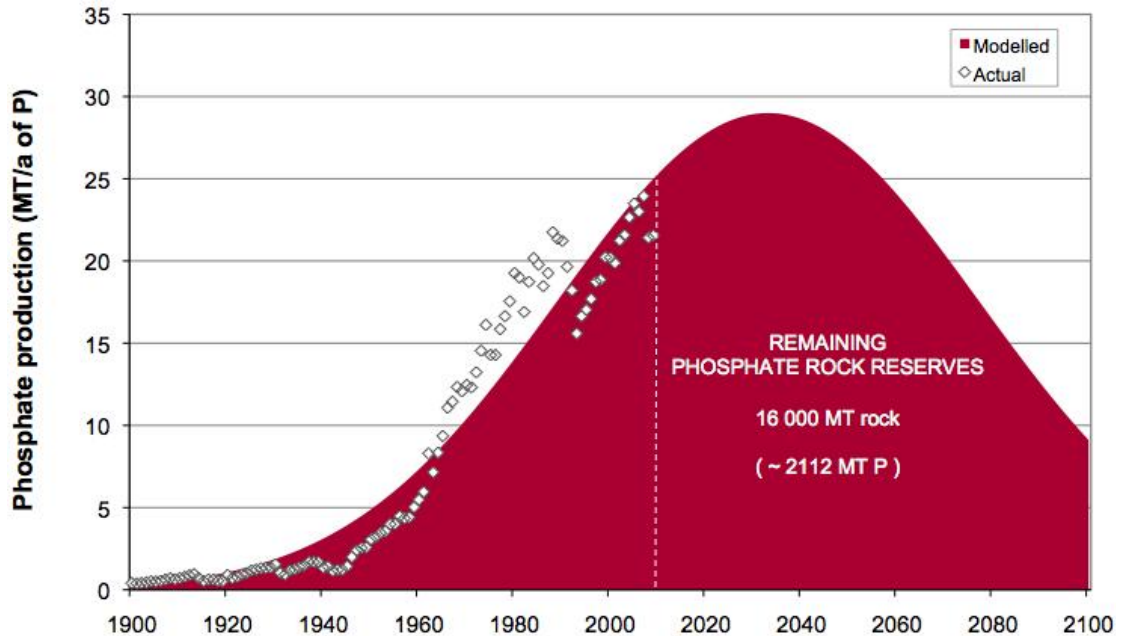
4. NUTRIENT RECOVERY FROM HOUSEHOLD WASTE

While the public consultation and the questions in the Department's document refer to solid waste (of the type normally collected in a waste bin, or brought to a civi amenity facility), we must not forget that households also produce considerable quantities of liquid wastes, more appropriately referred to as wastewater. Though outside the scope of this public consultation, it may be appropriate to mention some relevant issues.

Reference has been made of Class4 Septic Tank Waste. This is a household waste in a liquid or sludge form that needs to be managed.

An important finite world resource that we have concerns about is phosphorous, a vital component of the fertilizer needed to obtain high yields of crops in current intensive agriculture. This requirement to source phosphorus is relevant to the issue of the management of household liquid waste.

The remaining available world resources of phosphorous can be summarised in the following graph. This shows the point at which the remaining phosphorous rock reserves – mostly in the Western Sahara – begin to run out.



Peak phosphorus curve indicating a peak in production by 2033, derived from US Geological Survey and industry data.²⁸ Already the EU is pressing for the recovery of nutrients from waste water and their return to the land as a sustainable fertilizer and as a way to avoid phosphate pollution of our rivers and lakes.

The worlds remaining phosphorous rock reserves will be unable to meet world demand after 2030. This will impact on prices and will force everyone around the world to become super efficient in phosphorous recycling. If the world is starting to run out of cheap affordable phosphorous – we should take measures to recycle it.

We propose that over the remaining 15 to 20 years that all one-off houses be encouraged, or required, to progressively separate and store urine in much the same way that we are doing with septic tank sludge. Since human urine contains 70% of the nitrogen and almost 50% of the phosphorous we believe that this will become an important element in the strategy to be self sufficient in fertilizers over the coming century. Smart meters should measure and transmit the volume of urine in the storage tank and licensed farmers would be contacted to take the nutrients away. Pilot demonstration systems should be implemented, system perfections made, a manual prepared, and training should be provided and finally amendments should be made to Part H of the building regulations.

²⁸ See, for example: Stuart White and Dana Cordell -- Peak Phosphorus: the Sequel to Peak Oil. Institute for Sustainable Futures, University of Technology, Sydney, PO Box 123, Broadway, NSW 2007, Australia; and Cordell, D., Drangert J-O., and White, S., 2009. The story of phosphorus: Global food security and food for thought. Global Environmental Change, , May 2009, Pages 292–305

Approximate figures based on desktop research by Ollan Herr					
Analysis of various pollutants and nutrients in waste water	Grey Water	Kitchen Solids	Faeces	Urine	Faeces& Urine together
Nitrogen N	7%	8%	15%	70%	85%
Phosphorous P	14%	14%	26%	47%	73%
Potassium K	10%	37%	18%	35%	53%
Faecal bacteria & viruses			100%		100%
Volume of waste water / person	160 litres		0.6 litre	1.5 litres	

Table 4: Amounts of dissolved nitrogen and phosphorus in household wastewater and biological (human) wastes.

The recovery of nitrogen and phosphorus from household liquid and semi-solid wastes has been carried out in Sweden for many years, primarily as a method of preventing eutrophication of Baltic Sea from coastal communities and holiday homes located on rocky islets. Recovery of these nutrients from household wastes should be attempted in Ireland.

5. CONCLUDING OBSERVATIONS

There are very significant opportunities at the present for improving household waste collection practices, especially if we consider that discarded materials produced by the average household are not “wastes” in the accepted sense until they become mixed or contaminated by other materials. Addressing the “waste management problem” should begin at the design stage, when every item we use is designed and manufactured so that, at the end of the first stage of its useful life, it may be repaired, re-used, re-manufactured, re-cycled or returned to the soil and re-enter the biological cycle through composting.

This is the Zero Waste, Cradle to Cradle, or Circular Economy, based on the principles outlined in this submission. Implementing this system does not require new or complex technology, but a change in the way in which we view discarded materials, and in the economics of production, distribution and management of the secondary raw materials which we currently classify as “waste”. Political will, public awareness and acceptance and a willingness to avoid the trap of “market forces” dictating what we do with materials, are the principal instruments to bring about the necessary change.

The result of this Zero Waste approach will be to provide employment, reduce unnecessary transportation over long distances of materials to be recycled or re-processed, and ease the transition to a sustainable form of society.

It is accepted that Ireland may be quite a long way from achieving this goal, but there are examples which we can follow, and systems which we can adapt to

our needs. A positive approach, visionary but realistic goals, and a step-by-step roadmap will be necessary; and we would urge State agencies including the Department of the Environment, the EPA, NESC and others to work together to achieve these goals

Jack O'Sullivan and Ollan Herr

Zero Waste Alliance Ireland

January 2014