



# **Submission on the Issues Paper to Inform Development of a National Food Plan**

PREPARED BY THE



MUNICIPAL WASTE ADVISORY COUNCIL  
*"Getting the Environment Right"*

August 2011

**Status of this Submission**

This Submission has been prepared through the Municipal Waste Advisory Council (MWAC) for the Western Australian Local Government Association (WALGA). The Municipal Waste Advisory Council is a standing committee of the WA Local Government Association, with delegated authority to represent the Association in all matters relating to solid waste management. MWAC's membership includes the major Regional Councils (waste management). The Regional Councils members of MWAC include the Eastern Metropolitan Regional Council, Mindarie Regional Council, Southern Metropolitan Regional Council, Rivers Regional Council, Western Metropolitan Regional Council, Bunbury Harvey Regional Council and the City of Greater Geraldton. This makes MWAC a unique forum through which all the major Local Government waste management organisations cooperate. This Submission therefore represents the consolidated view of Western Australia Local Government. However, individual Local Governments and Regional Councils may have views that differ from the positions taken here.

Due to meeting schedules, this Submission has not yet been endorsed by MWAC, however, it will be put before the Council at the earliest opportunity (Wednesday 17 August 2011) and the Department will be informed of any changes to this Submission following consideration by the Municipal Waste Advisory Council.

The Municipal Waste Advisory Council's member organisations are:

Eastern Metropolitan Regional Council  
Bunbury Harvey Regional Council  
City of Greater Geraldton  
Mindarie Regional Council  
Rivers Regional Council  
Southern Metropolitan Regional Council  
Western Australian Local Government Association  
Western Metropolitan Regional Council

## Executive Summary

This Submission relates specifically to the waste management implications for Local Governments as per question 48 of the *Issues Paper to Inform Development of a National Food Plan* (Issues Paper) recently released by the Department of Agriculture, Fisheries and Forestry. Under the *Waste Avoidance and Resource Recovery Act 2007*, Local Governments in Western Australia have been made responsible for the management of the Municipal Solid Waste stream (i.e. waste generated from households). WALGA, on behalf of Western Australian Local Governments is providing comments on this question, to highlight some of the implications that need to be considered in taking action on food waste, as well as the inclusion of examples of initiatives regarding the management of food waste that has yielded remarkable results. Other Local Governments/ Local Government organisations may also be making comment on the full paper.

The following recommendations are explored in detail throughout the Submission. In summary, WALGA recommends that when developing the National Food Plan:

- That the Department of Agriculture, Fisheries and Forestry broaden the definition of a supply chain to reflect a 'cradle to cradle' approach;
- That the Department of Agriculture, Fisheries and Forestry identify any legislative barriers to the reuse or recovery of food;
- That the Federal Government as a whole supports the waste industry by investing funds generated from Landfill Levies into processes and technologies aimed at reducing waste;
- That the Department of Agriculture, Fisheries and Forestry considers the range of implications that action on food waste could have on existing policy instruments for other aspects of the waste stream;
- That the Department of Agriculture, Fisheries and Forestry identify strategies to identify and avoid perverse / unforeseen outcomes of implementing new policy instruments;
- That the Department of Agriculture, Fisheries and Forestry works with the Department of Sustainability, Environment, Water, Populations and Communities to establish baseline data for accurately assessing the scale of the food waste generated in Australia;
- That the Department of Agriculture, Fisheries and Forestry investigate the range of potential policy instruments available to reduce food waste; and
- The Federal Government support the waste industry by providing:
  - Funding to assist with projects to reduce, reuse or recycle food waste; and
  - Education campaigns to avoid food waste.

## General comments

### Consideration of the Supply Chain

For the purpose of this Submission, food waste encompasses all food that is wasted during any point on its journey to the consumer. This includes the waste generated when food reaches a consumer only to be unused. By pausing to consider the overall wastage of food in the Australian setting, it becomes clear that significant financial, environmental and social gains can be made in adapting sustainable processes for food production.

The principles underpinning the Waste Hierarchy (Figure 1) should be used in designing strategies to combat food waste. The Waste Hierarchy is commonly used to highlight some of the opportunities that exist in prolonging the usefulness of materials classed as waste, with the various strategies listed in order of preference.

Figure 1 shows a diagram of the Waste Hierarchy, with the strategies being placed in order of preference; waste avoidance and minimisation is the most preferred and maximises the most resource, disposal is the least preferred option. In this Submission, the principles of the Waste Hierarchy are used to discuss the various approaches that have, and could be taken to better manage food waste.

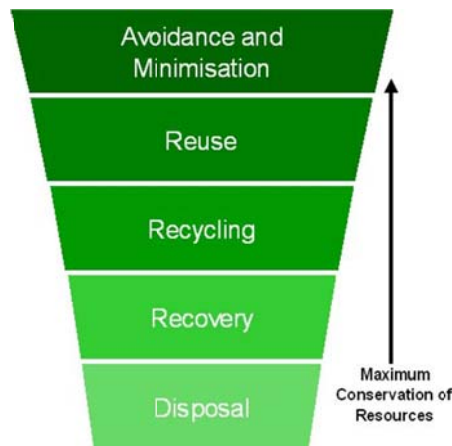


Figure 1. The Waste Hierarchy

In viewing food production from a sustainability perspective (i.e. ensuring that development meets the needs of the present without compromising the ability of future generations to meet their own needs), there is a need to consider the whole supply chain of food and its impact on the environment. In the Issues Paper, the definition of the terms 'food supply' and 'food industry' referred to "all parts of the food supply chain from the paddock to the plate."

WALGA is concerned that this definition of a supply chain may be limited in scope and not fully encapsulate what constitutes a supply chain for food in relation to managing waste. An understanding of supply chains has now moved beyond the cradle to the grave approach (or in this instance from the paddock to the plate) and now includes another step in the process. This new approach is commonly referred to as the 'cradle to the cradle approach', and effectively means that when a product reaches the end of its life, it is considered for input into another process.

**Recommendation 1:** That the Department of Agriculture, Fisheries and Forestry broaden the definition of a supply chain to reflect a 'cradle to cradle' approach.

#### **Current constraints in reducing food waste**

There are a number of legislative restrictions in Australia on donating food that is no longer fit for sale. Many companies are cautious of litigation for personal injuries (e.g. allergic reactions) from people consuming donated food. The Northern Territory recently amended legislation, allowing companies such as Woolworths to donate food to local charities without fear of liability.

In New South Wales (NSW), a number of regulatory constraints/standards were placed on what the contents of compost could be, along with where and how much compost could be used. This had a negative impact on the organic waste composting industry. The contents of compost are related to the contents of the waste stream. Quite often, an operator of a composting facility has limited influence on the contents of the waste stream that they are under contract to take. Operational controls are therefore in place to ensure the output of the product.

The amount of regulation placed on compost from Municipal Solid Waste is much greater than the regulations placed on fertilisers and organic materials (such as biosolids) to enhance agriculture. This has presented a significant obstacle to the 'cradle to the cradle' approach. To address this problem, there is a need for the implementation of mandatory, equitable standards that apply to all recycled organics (WALGA 2007). A possible method of ensuring equitable enforcement of regulations on compost from Municipal Solid Waste would be to place enforcement responsibility with Agricultural Departments and not environmental regulators as is currently the case in Western Australia.

Across Australia, various State Governments have introduced a levy on wastes that go to landfill. The purpose of these levies varies, they provide a commercial incentive to find alternative waste disposal methods to landfill, as well as raising funds for the State Governments. How these funds are invested varies nationwide. In Western Australia, 75% of the funds generated from the Waste Avoidance and Resource Recovery Levy have been used to fund the operations of the Western Australian Department of Environment and Conservation. Limited funds have been made available to support the waste industry in investing in better processes and technologies for reducing wastes. Funds generated from levies need to be invested back into initiatives that reduce the generation of wastes in Australia.

**Recommendation 2:** That the Department of Agriculture, Fisheries and Forestry identify any legislative barriers to the reuse or recovery of food.

**Recommendation 3:** That the Federal Government as a whole supports the waste industry by investing funds generated from Landfill Levies into processes and technologies aimed at reducing waste.

### **Impacts of other waste management issues**

The range of materials that constitute the waste stream in Australia is diverse. As a result, so is the waste industry managing the materials. In addressing a single problematic aspect of the waste stream, it is possible that a detrimental effect could be felt in another area.

Before a new policy initiative to reduce waste can be implemented, investigation into how existing policy instruments could be affected must be undertaken to negate undesirable outcomes. An example of how food waste is linked to another waste area is with the Australian Packaging Covenant (APC). The Covenant is a commitment by governments and industry to the sustainable design, use and recovery of packaging (APC, 2010a). One of the measurable outcomes that the Covenant has been working towards is to reduce the units of packaging per weight of product (APC, 2010b). If this outcome was to be achieved for packaging waste, a greater amount of food could be thrown out due to the increased size of saleable products. In this instance, it would be difficult to bring about a reduction in the amount of food waste generated. Communicating mixed messages on buying in bulk, with only buying what you need, would only result in confused consumers, and environmentally detrimental disposal of waste. Therefore, it is vital that the Federal Government employs holistic problem solving when tackling any aspect of the waste stream.

**Recommendation 4:** That the Department of Agriculture, Fisheries and Forestry considers the range of implications that action on food waste could have on existing policy instruments for other aspects of the waste stream.

**Recommendation 5:** That the Department of Agriculture, Fisheries and Forestry identify strategies to identify and avoid perverse / unforeseen outcomes of implementing new policy instruments.

## **Specific comments in relation to Question 48 of the Issues Paper:**

### **48 a) what (if any) contribution could action on food waste make to improving sustainability of Australian food supply chains?**

#### **Food waste – Avoidance**

Audits of household bin contents in Australia have repeatedly found high percentages of food waste. According to the National Waste Report 2010, “food waste constitutes 35% of municipal waste (4.45 million tonnes) and 21.5% of commercial and industrial waste (3.12 million tonnes).” Quality and collection approach in relation to waste data varies nation wide. If measures were undertaken to change the consumption patterns of householders so less food waste was created, there would be far reaching benefits for the environment, from intelligent land use, through to a reduced dependency on energy providers, along with financial gains from improved production processes. In order to understand these benefits, consideration of a products whole life must be undertaken. The embodied energy in food products is extremely difficult to estimate, considering the variety of places that food is

produced and transported from. Additionally, measuring the amount of greenhouse gases produced from the organic fraction of waste decomposing in landfills has proved to be problematic for those involved in the development of the Federal Carbon Pricing Mechanism. The Australia Institute has estimated that that household food waste was responsible for 5.25 Mt CO<sub>2</sub>-e emissions in 2004 (or 33%) of emissions from solid waste in landfill (The Australia Institute, 2009). Aside from municipal waste sources, food waste also comes from a range of commercial sources including workplaces, restaurants, entertainment venues, hospitals and schools.

If consumers were only to buy the food that they require, there would be an effect felt all along the supply chain back to the primary producers. Less food would have to be generated to sustain the Australian population. Generating less food at the primary production level would reduce the amount of fertiliser and chemicals commonly required to grow crops. The energy used to plant, maintain and then harvest crops would also reduce for primary producers and processors. Additionally, if food waste is processed into compost and used by primary producers, there are a number of well documented benefits, such as increased water holding capacity of soil, and the quality of the soil (Zero Waste SA, 2010). This would mean there was a reduced dependency on fertilizer in Australian farming and fully incorporate the 'cradle to the cradle' approach.

**Recommendation 6:** That the Department of Agriculture, Fisheries and Forestry works with the Department of Sustainability, Environment, Water, Populations and Communities to establish baseline data for accurately assessing the scale of the food waste generated in Australia.

#### **48 b) What are the best opportunities to reduce Australia's generation and landfill disposal of food?**

Below are some examples of how the Waste Hierarchy approach has been used to reduce the generation of food waste at some of the points along the consumption pathway:

##### **Waste Avoidance – United Kingdom and Australia (NSW)**

The United Kingdom initiative by Waste and Resources Action Programme, titled *Love Food Hate Waste* reached over 1.8 million people and prevented 137,000 tonnes of food from going to waste in just two years. The Office of the Environment and Heritage in NSW has also adopted this initiative; working with industry, businesses and Local Governments to combat the colossal amount of food waste in the State. There are estimates that over 800,000 tonnes of food is thrown away annually by NSW householders. Estimates from the then Department of Environment, Climate Change and Water, suggest that 315kg of food waste goes to landfill from each household, or 38% of the kerbside garbage bin contents. A further 340,000 tonnes of food is throw away by businesses in Sydney alone (Office of the Environment and Heritage, NSW, 2010). More detailed information on the overall quantity and cost (estimated to be \$2.5 billion annually for NSW) of this wastage is available at [www.lovefoodhatewaste.nsw.gov.au](http://www.lovefoodhatewaste.nsw.gov.au). The website also features practical ideas for businesses and householders on how to reduce the generation and subsequent wastage of food.

##### **Waste Reuse and Recycling from grocery outlets - Australia wide**

Woolworths has set a target of reducing the amount of organic waste from its stores to zero by the year 2015. A key initiative in achieving this goal is the Fresh Food Rescue program. Through this program, surplus fresh food from the stores is made into meals for the needy. Over half of the 810 stores have established partnerships with organisations such as Foodbank, OzHarvest, FareShare, The Salvation Army and SecondBite to make this possible. Woolworths has also contributed to capacity building within these organisations, through a \$2 million grants scheme.

##### **Waste Recovery from an entertainment complex - Western Australia**

The Burswood Entertainment Complex received grant funding from the Western Australian Waste Authority, to implement a large scale food waste collection system for initially two of its kitchens. There were a few initial issues with contamination of the organics bins, but when

these were resolved the project proved to be very successful (Burswood Entertainment Complex 2011). 26.1 tonnes of food waste were diverted from landfill and composted over the two month implementation period. This equated to a saving of approximately 34 tonnes of carbon dioxide-equivalent. There were also financial gains from this process, with \$2,062 saved in disposal costs over the two month period. Burswood also purchased 14m<sup>3</sup> of compost during the trial for use on their gardens. This collection system has worked so well, that Burswood is installing the system in all of its kitchens.

### **Waste Recovery from Alternative Waste Treatment**

As depicted in the Waste Hierarchy (Figure 1) there will be situations when it is not possible to avoid, or reuse food waste. In this instance, there are many opportunities to recycle food into compost at a domestic or commercial scale. There are a number of commercial Alternative Waste Treatment (AWT) facilities in Australia. These facilities are designed to recover the organic segment of the waste stream. In Western Australia, a number of these facilities that take municipal waste and have been developed, in partnership with industry, by Local Government. The AWT at Neerabup (Mindarie Regional Council), for example, is designed to process in the realm of 100,000 tonnes of MSW annually, composting 98% of the organic fraction of the waste stream. In the first year of operation almost 16,000 tonnes of nutrient rich compost was produced, diverting 36,121 tonnes of waste from landfill. The plant is now operating at full capacity. The compost has been sold for use in various agricultural industries.

There will be some instances where composting on such a large scale is simply not feasible. Should this be the case, there are a number of home composting products available for processing household quantities of food waste. For this to be successful, it is important that householders are aware of the capabilities of their chosen system, and how to maintain it. Many householders would not be aware that using inadequately composted material for growing food could be detrimental to human health.

**Recommendation 7:** That the Department of Agriculture, Fisheries and Forestry investigate the range of potential policy instruments available to reduce food waste.

### **48 c) Are these subject to market failures (this is, the private sector does not have commercial incentives to better manage food waste)?**

In Western Australia, Local Governments have been made responsible for managing the Municipal Solid Waste Stream under the *Waste and Resource Recovery Act 2007*. The remaining waste streams are subject to limited regulation. Financial drivers such as the Waste Avoidance and Resource Recovery Levy have provided limited commercial incentive for waste processors to embrace food waste treatment technologies. There are opportunities for the Federal Government to provide incentives for food waste diversion through mechanisms such as the Federal Carbon Pricing Mechanism.

As with other components of the waste stream effective food waste is largely dependant on economies of scale. Implementing separate food waste collection systems (such as a third bin for organics collection and/or an organics Processing Plant) can be expensive, dependant on factors such as the type of technology used, the location of the processing plant, population size, density and the frequency of collection. For example, the implementation (including planning, licensing and construction) of AWT facilities and landfills can take between five and seven years, will involve waste supply contracts for at least 20 years and require an investment of at least \$100 million.

Regional Councils are finding that the cost of building and running these facilities has impacted on the core businesses of their members, who act as guarantors in securing finance. For some Local Governments, this method of processing organics is simply not viable, so other alternatives such as home composting units or 'windrow composting' has been pursued. These methods also have problems, with amenity issues and stringent licensing requirements from the WA Department of Environment and Conservation.

A food waste collection pilot project was undertaken in South Australia in 2010, with 17,000 households from 10 Local Governments. In the pilot, householders placed all kitchen scraps – including dairy and meat scraps - in bench-top containers which were then placed in the garden organics bin for fortnightly collection and then composted commercially using a controlled open windrow process (Zero Waste SA, 2010).

**Recommendation 8:** The Federal Government support the waste industry by providing:

- Funding to assist with projects to reduce, reuse or recycle food waste; and
- Education campaigns to avoid food waste.

## **Conclusion**

The Municipal Waste Advisory Council commends the Department on their initiative in ensuring that food waste is considered as part of the wider sustainability of the supply chain. However, as discussed in the Submission, the definition of the supply chain is limited and needs to take into account the opportunities that exist in utilising the embodied resources of food once it has gone beyond 'the plate'.

Financial and legislative barriers to decreasing the amount of food waste generated in Australia need to be clearly identified and addressed with an awareness of the current programs and policies in place for managing waste at a local, state and federal level. There are a range of approaches that can be taken to address food waste, such as minimising and avoiding food waste generation, or turning food into compost once it has no other use.

In Western Australia, there has been substantial activity and investment with regard to food waste diversion from landfill - as part of the organic waste stream. The support of the Federal Government would greatly assist in continuing this level of activity.

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