

20 November 2008



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Chairman
Waste Authority
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Locked Bag 104
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Attention: Mr. Barry Carbon

Dear Barry,

RE: Waste Authority's call for "Big Ideas"

On behalf of the Waste Management Association of Australia (WMAA) Western Australia Branch, I thank the Waste Authority for the opportunity to canvas our members and bring forward ideas that would not normally be readily expressed.

It is clear there is momentum to instigate initiatives that support the "Towards Zero Waste" vision, and that direction from the Waste Authority is greatly needed to allow these initiatives to progress with strategic guidance. The "Big Ideas" gathered from our members and forwarded in their raw form are as follows:

STRATEGIC INDUSTRY PLANNING

1. Waste Authority – Waste Strategy for Western Australia

Under Part 2 of the WARR Act 2007 the Waste Authority is responsible for developing a Waste Strategy for the whole of Western Australia. It is recommended that the Waste Authority develop its "Waste Strategy" as a matter of urgency which in turn will give the waste industry direction over the coming years.

2. Strategic Waste Management Plan Initiatives

Most Regional Councils and Local Governments have recently submitted Strategic Waste Management Plans to the Department of Environment and Conservation. Included in the plans are details of funding requirements for initiatives identified as contributing to the diversion of waste from landfill. In many cases the implementation of the initiatives will be dependent on the availability of human resources to administer the plans, and the availability of funding to adopt the initiatives.

It is recommended that the Waste Authority consider funding the initiatives included in the Strategic Waste Management Plans that were received by the DEC.

3. Strategic Direction for the Establishment of Waste Industry Infrastructure

Since the disbandment of the Core Consultative Committee in 2006, there has been limited consideration by State Government regarding the strategic siting and establishment of waste management infrastructure. The role of the DEC relates to the assessment of proposals submitted for consideration on environmental and social grounds. It has been left to Industry and Regional Councils to site and establish infrastructure. This has shown that there are immense difficulties experienced in finding suitable sites and/or facilities, and that such facilities are being established in soft touch locations without due consideration for the resultant social implications and overall carbon balance of the handling of waste. In addition, there is a need for a cohesive cooperative approach to marketing the outputs.

Funding of an Executive Position will provide resources for consultation between stakeholders, with the aim of establishing future waste management infrastructure that satisfies social, environmental and economic needs on a State wide basis.

4. Waste Management Plans (WMP) for Developments

It is encouraging that the Waste Authority's minutes of its November 5, 2008 Item 8.3 acknowledges that Local Governments need powers to request waste management plans (WMPs) from developers. Local Governments across Perth are of the opinion that significant waste recovery can be obtained by requesting developers to include WMPs as part of a development application.

Councils are keen to have the ability to require waste management plans from developers but do not have the legislative authority to do so. In its minutes the Waste Authority states that it believes the development of a model by-law or policy is the best way of achieving this outcome.

With in excess of 140 Local Governments across the State the Authority's suggested approach is not considered appropriate. Further investigation is required in collaboration with WALGA, the C&D industry and the DEC to identify the most suitable method of making WMPs for developers mandatory.

5. Waste Used for Power Generation

Throughout the metropolitan area and across regional WA large quantities of combustible waste continue to be landfilled each year. The recent focus has been on removing the organic fraction from the waste stream leaving the resource rich combustible fraction to be landfilled.

Power generation throughout the State is mainly produced by burning coal, natural gas, diesel and woodchips, all of which contribute to our greenhouse emissions and depletion of our natural resources. Recent advances in technology suggest that the generation of power from secondary resources (waste) on a modular scale is rapidly becoming a reality.

Collaboration is required between the Ministries of Environment and Energy to facilitate discussion and the development of the use of secondary resources for power generation.

6. Waste Audits from Regional Landfills

The Zero Waste Management Development Scheme has highlighted that there is little knowledge of the types and quantities of waste going into non

metropolitan and rural landfills. The characteristics of non metropolitan waste are extremely variable when compared to metropolitan waste. Across the State, variations in demographics, climate, local industry, mining and agriculture have a huge influence on the types and quantities of waste being landfilled.

The proposal is to fund an across the State waste audit campaign, spending one week at each DEC licenced landfill to audit the incoming waste streams using portable weighing cells. The campaign would be ongoing and repeated prior to each round of the Strategic Waste Management Plans.

7. Life Cycle Assessment of Alternative Waste Treatment Plants (AWTs).

There is growing support for AWTs for the processing of Perth's municipal waste. A detailed whole of life analysis of AWTs is required to quantify the economic, social and environmental implications of this form of waste processing.

8. Impact of Landfill Levies on Diverting Waste from Landfill

Further to the Levy Forum held at the Waste and Recycling Conference during September 2008, carry out an investigation into the performance of landfill levies in diverting waste away from landfill for resource recovery. The purpose of the study would be to provide the State with a detailed and unbiased report on the effectiveness of levies and include whole of life carbon balance equations for both the secondary resources recovered from the waste stream and for the use of virgin materials.

9. Review of The Waste Classification System in WA

Residual wastes from resource recovery plants are subject to the payment of landfill levy that is set under the WARR Levy regulations for Category 64 and 65 landfills. The resource recovery industry generates residual waste, which in most cases is benign, but due to its classification must go to a class 64 landfill and is subject to the highest landfill levy. Due to the benign nature of these residual wastes, they have limited potential for the generation of methane within the landfill. Consideration is needed for new waste categories that accommodate benign residuals from resource recovery processing and be subject to landfill levies that are lower than that currently required for category 64 wastes.

10. Regional Waste Directive Investigation

The Waste Authority through the Zero Waste Management Development Scheme is encouraging regional cooperation between Local Governments by providing funding incentives for the preparation of Regional Strategic Waste Management Plans. Formalisation of the resulting regional cooperation groups is required in order to advance the Scheme.

A feasibility study is recommended to determine the viability of using Development Commission boundaries as a means of developing regional waste councils to:

- Achieve viable recycling, waste diversion strategies, organic recycling and improved landfill management;
- To maximise the opportunities for viable waste diversion / recycling;
- To maximise the opportunities for waste disposal sites to be developed into waste precincts able to utilise (and hence encourage) landfill emissions for energy supply and export;
- Use the Development Commission's network and funding power to have regional councils work together to develop and implement regional strategies that can enhance employment and business opportunities by diverting waste streams.

11. Small Business Waste Minimisation and Diversion

Encouragement is required for small/medium enterprises (SME) to improve their efforts in recycling and waste minimisation. The proposal is to ascertain waste streams and classify into those waste streams, which are the most viable in terms of cost and ability to segregate. Also include investigation of options for shared recycling bins to be used by multiple small businesses.

12. Expansion of the Waste Wise Programme to the SME and Hospitality Sectors

The Waste Wise Schools Programme, funded through the Waste Authority, is widely recognised and acknowledged as a key agent of behaviour change in our communities. The small/medium enterprise (SME) sector and the hospitality sector regularly receive funding for waste minimisation initiatives but there is a need for a longer term investment in the management of commercial and industrial waste. The Recycle @ Work Programme, funded through the Strategic Waste Incentive Scheme, goes some way to addressing offices, however, the expansion of the Waste Wise programme to include the SME sector would assist with a cultural change that is required in the commercial environment. The recommendation is to:

- Support the expansion of the Waste Wise Programme into the SME sector; or
- Develop/adopt a similar programme either ecoBiz in Queensland or Resource Smart in Victoria and appropriately resource a programme over 3 to 5 years;
- Support and appropriately resource the Recycling Awareness Campaign over 3 to 5 years.

INFRASTRUCTURE

13. Potential for use of Federal Land: State/Federal Cooperation

Land availability in the Perth Metropolitan area is currently at a premium, increasing the difficulty for the waste industry in ensuring appropriate facilities are located in reasonable proximity of waste generators. Some land in this area comes under Federal jurisdiction, highlighting the need for State/Federal cooperation when planning for the future of waste in Western Australia.

For example the Mt Claremont Sports Park Precinct Plan Phase 2 is proposing to redirect Lemnos Street to the south of Brockway Waste Transfer Station across Department of Defence land and intersect with Brockway Road at the John the 23 Avenue intersection. This redirection creates an area approximately twice the size of the Brockway site for "light industry/commercial" use as designated on the concept plan.

The additional land can be used to establish additional resource recovery and recycling initiatives including a C&D facility. Collaboration is required at Federal and State Government levels to secure this parcel of land for resource recovery.

14. Regional Waste Treatment Precincts

As promoted by the Waste Authority, through the Strategic Waste Management Plan process, Local Governments are increasingly moving towards regional facilities for waste management. One such example is a discussion by several South West Councils, regarding the feasibility of a regional resource recovery facility as part of a waste treatment precinct. Such a facility would cost in the region of \$20Mil. A centralised precinct could use best practice resource recovery processes, and use the recovered resources to produce on-site manufactured products.

15. Regional Waste Management Facilities and Sites for Class III and IV wastes

Again, through the Strategic Waste Management Plan process, Local Government has been developing plans for regional facilities. In the non-metropolitan area, there is the potential for including waste from a number of sources in these facilities. There are also specific issues regarding the appropriate disposal of animal carcasses in the rural areas of the State.

For example, in the great southern region there is the potential to have a facility licenced to accept Class III and IV wastes such as asbestos and industrial sludges. The Narrogin branch of the Department of Agriculture and Food has highlighted the need for a facility to appropriately dispose of large numbers of diseased or drought affected stock from within the region. Potential locations for such a facility are within the Shire's of Wagin and Narrogin.

By utilising a large parcel of rural land to accommodate a facility, appropriate buffer distances and carbon sequestration opportunities will be available.

16. Perth Commercial & Industrial (C&I) Waste Resource Recovery Facility

The C&I sector has been flagged by many members as an area in need of urgent attention and investment in infrastructure. It is suggested that a grants scheme, focused specifically on C&I material be put in place to facilitate investment in infrastructure.

As an example, one proposal put forward by two of the major waste/recycling companies was to establish a joint C&I resource recovery facility in metropolitan Perth. However, funding assistance would be required to facilitate the project.

17. Mattress Recycling Facility

One problematic waste which has been identified are mattresses. Mattresses are one of the most common items put out on verges for local government collections. In Australia, around 1.25 million mattresses are sent to landfill every year. Despite the good work already underway in the State to divert mattresses from landfill, further State wide action is needed to ensure easy access to mattress recycling for all residents.

ORGANICS

18. Separate Household Organic Waste Collection Program

A pilot programme is recommended to explore a separated household organics collection service, to improve the quality of recovered organic compost products. Soil protection considerations are the reason for considering separate organics collection as “best waste collection practice”.

There is evidence in (Europe) that organic materials derived from source separated residential organics contain between 2 and 7 times less heavy metals than organics derived from municipal waste. With repeated application of organics derived from mixed municipal waste the acceptable safe heavy metal limits for soil will be reached after a relatively small number of applications.

A study of source separated household organic waste collection in Adelaide around 2 years ago led to the WASTE SA project which resulted in the adoption of a 3 bin collection strategy for Adelaide.

19. Onsite Biogas Plants for Waste Management in Rural and Urban Situations

Onsite biogas plants will be a major future initiative for waste management in rural and urban situations, such as industrial solid waste from food and meat processing facilities, slaughterhouse and market waste with integrated energy generation. Murdoch University is currently working towards establishing a small scale system at the Environmental Technology Centre. The budget for this project can be up to \$1Mil for a 3 year project and financial support is needed for the project.

20. Compost for Overcoming Land Degradation in Agricultural Areas of WA.

There is a need to establish whether an artificial market for broad acre compost application could facilitate greater uptake of recycled organics, and improve the application systems to enhance soil conservation and overcome degradation of natural ecosystems from salinisation and acidification.

A feasibility study is recommended to confirm the effectiveness of recycled organics in ameliorating salinisation and acidification problems in our agricultural areas. There is also need for additional, WA specific research into the bioavailability of nutrients in compost.

E - WASTE

21. Reduction of the direct and indirect environmental impacts of E-waste

The number and diversity of electrical and electronic equipment utilised within our modern lifestyles is growing rapidly with large quantities of these products being replaced and disposed annually. This fast growing

manufacturer to consumer product stream has been recognised for its environmental hazard potential and the need for its safe disposal. E-waste differs substantially from the regular municipal waste stream as it is a complex mixture of materials and components, some of which can be harmful, posing high risks to the environment as well as human health. E-waste contains valuable resources in the form of heavy metals that can be recovered and recycled.

The Waste Authority's Priority Waste Focus Area Matrix 2004-05 categorises electrical waste as a secondary focus area and to be the responsibility of only the consumer, processor and disposer. Safe E-waste disposal is a complex issue and requires the engagement of all stakeholders from manufacturer, consumer, collector, processor and disposer to sustainably resolve and therefore should be considered as a primary focus area. Implementation of a meaningful and ongoing E-waste recycling programme will also require financial and strategic support from State Government.

On behalf of the WA Branch I would be pleased to meet with you to discuss the above 'Big Ideas', please contact me on 0402 373 582 to arrange a suitable meeting date and time.

Yours sincerely,
Waste Management Association of Australia (WA Branch)

BW Bowman

Bruce Bowman
State President