



**THIRTY-EIGHTH PARLIAMENT**

**REPORT 16**

**STANDING COMMITTEE ON ENVIRONMENT AND  
PUBLIC AFFAIRS**

**MUNICIPAL WASTE MANAGEMENT IN WESTERN  
AUSTRALIA**

Presented by Hon Sheila Mills MLC (Chairman)

May 2009

## STANDING COMMITTEE ON ENVIRONMENT AND PUBLIC AFFAIRS

### Date first appointed:

17 August 2005

### Terms of Reference:

The following is an extract from Schedule 1 of the Legislative Council Standing Orders:

#### **“1. Environment and Public Affairs Committee**

- 1.1 An *Environment and Public Affairs Committee* is established.
- 1.2 The Committee consists of 5 members.
- 1.3 The functions of the Committee are to inquire into and report on -
  - (a) any public or private policy, practice, scheme, arrangement, or project whose implementation, or intended implementation, within the limits of the State is affecting, or may affect, the environment;
  - (b) any bill referred by the House; and
  - (c) petitions.
- 1.4 The Committee, where relevant and appropriate, is to assess the merit of matters or issues arising from an inquiry in accordance with the principles of ecologically sustainable development and the minimisation of harm to the environment.
- 1.5 The Committee may refer a petition to another committee where the subject matter of the petition is within the competence of that committee.
- 1.6 In this order “**environment**” has the meaning assigned to it under section 3(1), (2) of the *Environmental Protection Act 1986*.”

### Members as at the time of this inquiry:

Hon Sheila Mills MLC (Chairman)	Hon Wendy Duncan MLC (from 5 November 2008)
Hon Bruce Donaldson MLC (Deputy Chairman)	Hon Paul Llewellyn MLC
Hon Kate Doust MLC	Hon Robyn McSweeney MLC (until 21 October 2008)

### Staff as at the time of this inquiry:

Paul Grant, Clerk Assistant (Committees)	Linda Omar, Committee Clerk
Peter Axford, Research Officer	Dr Vincent Cusack, Advisory Officer (General)

### Address:

Parliament House, Perth WA 6000, Telephone (08) 9222 7222

lcco@parliament.wa.gov.au

Website: <http://www.parliament.wa.gov.au>

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## **Government Response**

This Report is subject to Standing Order 337:

*After tabling, the Clerk shall send a copy of a report recommending action by, or seeking a response from, the Government to the responsible Minister. The Leader of the Government or the Minister (if a Member of the Council) shall report the Government's response within 4 months.*

The four-month period commences on the date of tabling.

## **Glossary**

<b>C &amp; D</b>	Construction and Demolition
<b>C &amp; I</b>	Commercial and Industrial
<b>CDL</b>	Container Deposit Legislation
<b>CMCOAG</b>	Canning Melville Community Odour Action Group
<b>Committee</b>	Legislative Council Standing Committee on Environment and Public Affairs
<b>DEC</b>	Department of Environment and Conservation
<b>EPHC</b>	Environment Protection and Heritage Council
<b>FORC</b>	Forum of Regional Councils
<b>Petition 59</b>	Petition tabled in the Legislative Council by Hon Simon O'Brien MLC on 26 June 2007
<b>RRRC</b>	Regional Resource Recovery Centre at Canning Vale
<b>SMRC</b>	Southern Metropolitan Regional Council
<b>WALGA</b>	Western Australian Local Government Association
<b>WARR Account</b>	Waste Avoidance and Resource Recovery Account
<b>WARR Act</b>	<i>Waste Avoidance and Resource Recovery Act 2007</i>

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# EXECUTIVE SUMMARY, FINDINGS AND RECOMMENDATIONS

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## EXECUTIVE SUMMARY

- 1 The Committee's inquiry arose from Petition 59, which dealt with community concern regarding odour emissions from the Southern Metropolitan Regional Council's Resource Recovery Centre in Canning Vale.
- 2 The Committee found those community concerns to be justified. Whilst the odour issue has not been fully addressed as at the time of reporting, the Committee is confident that there is a technical, engineering, solution to the odour problem, and that there is an effective environmental regulatory regime in place to deal with the issue.
- 3 Whilst undertaking the inquiry into Petition 59, the Committee was concerned that local government was apparently being left to their own devices in establishing large-scale resource recovery infrastructure projects worth hundreds of millions of dollars and utilising the most advanced, and possibly untested, alternative waste treatment technology.
- 4 The Committee therefore resolved to widen the scope of its inquiry into all aspects of municipal waste management and the use of alternative waste technologies in Western Australia.
- 5 Municipal waste (predominantly household waste) accounts for approximately a quarter of the total volume of waste in Western Australia. The remaining 75% of waste that goes primarily into landfill is from commercial and industrial sources, and construction and demolition. Municipal waste, however, is perhaps the most significant waste stream because it is generally comprised of more complex materials, with high levels of putrescibles (up to 70% of the waste is organic materials), which result in greenhouse gas emissions when land-filled. Municipal waste also contains toxic materials, such as batteries, paints, pharmaceuticals and electronic waste.
- 6 There are high community and societal expectations of effective municipal waste management, and the service is generally taken for granted. An arguably unreasonable burden falls to local governments, who have to recover costs and respond to increasing volumes of waste. This increased volume is due to a combination of an increase in per capital consumption of goods, and an increase in the amount of packaging and material complexity of house-hold consumer goods.
- 7 The costs of waste management are not fully reflected in markets. It is still cheaper to land-fill than it is to recover and fully treat waste streams. Cost recovery for waste management in general terms comes from council rates paid by households, and

- revenue from recyclable resource recovery. Recycling revenue is vulnerable to fluctuating commodity prices for paper, plastics, steel and so on.
- 8 The Western Australian Landfill Levy has been so low as to make it virtually unfeasible to achieve high levels of resource recovery.
- 9 At present, administrative structures for waste management in Western Australia are fragmented, although local government has made considerable efforts via regional councils to generate economies of scale and avoid duplication. The Waste Management Authority appears to be marginalised, without adequate resourcing or powers.
- 10 Many of the issues raised in submissions were related to a lack of strategic direction and project management/technical resources and advice for local governments embarking on waste management programs. The Committee is of the view that many of these issues could, and should, be addressed by an independent, well-resourced, Waste Authority.
- 11 The Committee has made a number of recommendations for administrative and legislative reform to ensure a more independent, adequately resourced, Waste Authority.
- 12 Additional recommendations relate to specific measures to enhance waste management processes, and the need for a review of all levies, rates and charges associated with waste management.
- 13 The Committee notes that there is still more work to be done in investigating issues surrounding waste management in Western Australia. It is hoped that the future Standing Committee on Environment and Public Affairs, or other relevant Legislative Council standing committee, will continue to pursue these issues following the change in the Committee's membership after 21 May 2009.

#### FINDINGS AND RECOMMENDATIONS

- 14 Findings and Recommendations are grouped as they appear in the text at the page number indicated:

Page 6

**Finding 1: The Committee finds that Western Australia is statistically the worst performing State in Australia with respect to both landfill use and the rate of resource recovery from waste material.**

Page 6

**Finding 2:** The Committee finds that the municipal waste is the most problematic of all waste categories, due to its approximately 70 per cent organic content and the resulting potential risk to the environment from leachates and powerful greenhouse gas emissions, such as methane.

Page 10

**Finding 3:** The Committee finds that the waste collection services provided by local government in Western Australia are of a very high standard.

Page 10

**Finding 4:** The Committee finds that the formation of regional councils in Western Australia has proven highly successful in creating economies of scale in the management of municipal waste.

Page 13

**Finding 5:** The Committee finds that Western Australia is the worst performing State in Australia with respect to the lining of landfill sites.

Page 15

**Finding 6:** The Committee finds that the issue of prohibitive transport costs in rural and regional areas with respect to recyclable waste could be resolved by appropriate extended producer responsibility schemes, such as container deposit legislation.

Page 15

**Finding 7:** The Committee finds that a strategy needs to be developed to commercialise the products of resource recovery in rural and regional areas.

Page 35

**Finding 8:** The Committee finds that the community's concerns regarding odour issues at the Regional Resource Recovery Centre in Canning Vale were legitimate.

Page 36

**Finding 9:** The Committee finds that the Southern Metropolitan Regional Council has taken steps to identify a technical remedy to address the community's concerns regarding odour from its Regional Resource Recovery Centre.

Page 36

**Finding 10: The Committee finds that there are cost effective engineering solutions to the odour issues at the Regional Resource Recovery Centre in Canning Vale.**

Page 36

**Finding 11: The Committee finds that the Department of Environment and Conservation's enforcement powers achieved a positive result with respect to addressing the odour issues at the Regional Resource Recovery Centre in Canning Vale.**

Page 36

**Finding 12: The Committee finds that the Southern Metropolitan Regional Council had a poor communication strategy with respect to its Regional Resource Recovery Centre and the ongoing concerns of the local community.**

Page 36

**Finding 13: The Committee finds that there is a lack of coordinated and institutional support at the State Government level for the managers of resource recovery centres in the research and investigation of engineering solutions to address issues that may result in environmental enforcement action.**

Page 60

**Finding 14: The Committee finds that Western Australia has extensive and detailed waste management legislation, but lacks adequate regulations and administrative arrangements to drive waste management programs at the State level.**

Page 60

**Finding 15: The Committee finds that there is a lack of detailed public information regarding the expenditure of funds raised from the landfill levy.**

Page 60

**Recommendation 1: The Committee recommends that the *Waste Avoidance and Resource Recovery Act 2007* be amended so as to require the Waste Authority to table in the Parliament each year a detailed financial statement setting out all expenditure of funds raised from the landfill levy.**

Page 71

**Finding 16: The Committee finds that there is an urgent need for the establishment of product stewardship programs for electronic and other problematic wastes, such as glass and plastic containers, incandescent light bulbs, batteries, tyres, mattresses, paint and used motor oil.**

Page 83

**Recommendation 2:** The Committee recommends that the Government resolve the issue of funding for staff and resources for the Waste Authority as a matter of urgency.

Page 84

**Recommendation 3:** The Committee recommends that the *Waste Avoidance and Resource Recovery Act 2007* be amended to expressly limit the Department of Environment and Conservation's access to funds from the landfill levy to the offsetting of the actual administration costs of the landfill levy fund, and for other specified purposes to be set out in regulations.

Page 84

**Recommendation 4:** The Committee recommends that the *Waste Avoidance and Resource Recovery Act 2007* be amended to enable the Waste Authority to directly employ its own management and other key staff.

Page 84

**Recommendation 5:** The Committee recommends that the *Waste Avoidance and Resource Recovery Act 2007* be amended to clearly define that policy formulation in the area of waste management is the role of the Waste Authority and that environmental regulation is the role of the Department of Environment and Conservation.

Page 84

**Recommendation 6:** The Committee recommends that the Department of Environment and Conservation should take measures to physically and administratively separate those staff of the Department that are tasked to assist the Waste Authority from all other Department staff.

Page 84

**Recommendation 7:** The Committee recommends that the Waste Authority should take on a greater role in the provision of specialist waste management advice to local governments.

Page 84

**Recommendation 8:** The Committee recommends that a main focus of the Waste Authority should be on the development of a multi-disciplinary staff with expertise in the areas of resource recovery policy formulation, infrastructure development and contract management.

Page 96

**Finding 17:** The Committee finds that regional councils have played an important role in creating economies of scale in waste management infrastructure projects.

Page 96

**Finding 18:** The Committee finds that there needs to be more collaboration and coordination between local government, the Waste Authority and the State Government in site identification and development and in the choice of technology utilised for regional resource recovery centres.

Page 97

**Finding 19:** The Committee finds that more could be done at the State Government level in terms of planning strategies for large-scale resource recovery infrastructure projects, such as assisting in site selection and in the maintenance of appropriate buffer zones between existing sites and new residential developments.

Page 97

**Finding 20:** The Committee finds that there should be a closer working relationship between the Waste Authority and regional councils.

Page 97

**Recommendation 9:** The Committee recommends that the *Waste Avoidance and Resource Recovery Act 2007* be amended to give the Waste Authority a greater role in strategic planning for large-scale resource recovery infrastructure projects in Western Australia.

Page 97

**Recommendation 10:** The Committee recommends that the Government give consideration to the development of essential services legislation, and to incorporate waste collection and management in any definition of “*essential services*” included within such legislation.

Page 107

**Finding 21:** The Committee finds that waste treatment technologies are constantly changing and evolving, and that there is no one technology that is perfectly suited to the treatment of all types of waste.

Page 108

**Finding 22:** The Committee finds that the development of new waste technology in Western Australia needs to have regard to small-scale infrastructure in rural and regional areas.

Page 108

**Recommendation 11:** The Committee recommends that the focus of waste management efforts be on the separating and recycling of waste before the application of biological, chemical or thermal treatment technologies.

Page 114

**Finding 23:** The Committee finds that although an increase in the landfill levy may be appropriate, it is concerned that any increase in the levy may be absorbed as an additional revenue stream for the Department of Environment and Conservation's activities in the area of waste management.

Page 114

**Recommendation 12:** The Committee recommends that the Government implement a comprehensive review of levies, rates and charges associated with waste management, with the aim of getting a uniform, coordinated and cost reflective fee structure that can be reviewed by an independent body, such as the Economic Regulation Authority.

Page 122

**Recommendation 13:** The Committee recommends that the Government enact legislation to enable local government to be empowered to require that land developers submit waste management plans with respect to municipal waste as part of development applications.

Page 122

**Recommendation 14:** The Committee recommends that the Government enact legislation to enable local government to be empowered to require that land developers submit waste management plans with respect to commercial and industrial and construction and demolition waste as part of development applications.

Page 126

**Recommendation 15:** The Committee recommends that the Waste Authority facilitate the introduction by all Western Australian local governments of a uniform, best practice, municipal waste collection system.





# CHAPTER 1

## INTRODUCTION

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### BACKGROUND TO THE INQUIRY

- 1.1 The functions of the Standing Committee on Environment and Public Affairs (**Committee**) are to inquire into and report on public or private policies, practices, schemes, arrangements or projects in Western Australia which affect or may affect the environment, as well as any bill referred by the Legislative Council and petitions. The terms of reference of this Committee are published at the front of this report.
- 1.2 All petitions tabled in the Legislative Council that do not raise a matter of privilege<sup>1</sup> are referred to the Committee.
- 1.3 On 26 June 2007, Hon Simon O' Brien MLC tabled the following petition in the Legislative Council which stated in part:

*We the undersigned residents of Western Australia are opposed to the continued operation of the Regional Resource Recovery Centre's Waste Composting Facility in Canning Vale. This facility creates a noxious odour, affecting the health and lifestyle of the residents in surrounding suburbs.*

*Your petitioners therefore respectfully request the Legislative Council to support residents and others affected by this Waste Composting Facility and recommend to the Government that the South Metropolitan Regional Council relocate the facility away from any residential area.<sup>2</sup>*

- 1.4 In accordance with Standing Order 134(i), the petition (**Petition 59**) stood before the Committee.
- 1.5 The Committee conducted preliminary inquiries into the matters raised in Petition 59<sup>3</sup> by gathering background information including writing to the principal petitioner and tabling Member inviting submissions on the issues raised in the petition.

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<sup>1</sup> Petitions tabled in the Legislative Council that raise a matter of privilege are referred to the Standing Committee on Procedure and Privileges.

<sup>2</sup> Hon Simon O' Brien MLC, Western Australia, Legislative Council, *Parliamentary Debates (Hansard)*, 26 June 2007, p3591.

<sup>3</sup> These numbers are assigned sequentially for each petition that comes before the Committee, starting at No 1, at the commencement of each term of Parliament.

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- 1.6 The Committee wrote to Hon David Templeman MLA, the then Minister for the Environment and to Mr Stuart McAll, Chief Executive Officer of the Southern Metropolitan Regional Council (**SMRC**), on 16 August 2007 inviting comment on the terms of the petition and the submission. The letters contained additional questions from the Committee.
- 1.7 The Committee held a hearing and conducted a tour of the Regional Resource Recovery Centre (**RRRC**) at Canning Vale on Wednesday 5 December 2007. The Committee did not detect any unreasonable odours emanating from the RRRC during that site visit.
- 1.8 Based on the information provided by the then Minister for the Environment, and on the December site visit, the Committee finalised the petition on 20 February 2008.
- 1.9 The Committee reopened its inquiries into the petition on 7 May 2008 because of ongoing community concerns about the odour.
- 1.10 On 14 May 2008, the Committee resolved to conduct a stand alone inquiry into Petition 59, and to focus that inquiry specifically into the odour emanating from the RRRC at Canning Vale. The Committee called for submissions and received a large number from local residents expressing concerns with the odour emissions. The Committee held hearings with the Canning Melville Community Odour Action Group (**CMCOAG**), the Department of Environment and Conservation (**DEC**) and the SMRC.
- 1.11 The inquiry into Petition 59 lapsed when the Parliament was prorogued on 7 August 2008.
- 1.12 The Committee remained aware of the ongoing controversy involving the odour from the RRRC. However, from its preliminary inquiries and research, the Committee noted that some of the administrative and legislative issues arising from the establishment and ongoing operation of the RRRC had implications for waste management throughout the State.
- 1.13 The Committee thus commenced an own motion inquiry into municipal waste management in Western Australia on 26 November 2008 with the following, broader, terms of reference than its original inquiry into the RRRC:

*Considering the ongoing community concerns about the odour emanating from the Regional Resource Recovery Centre in Canning Vale (**RRRC**) the Committee resolves to use the issues surrounding the RRRC as an illustrative practical case study to conduct a broader inquiry into:*

- 1 *Current municipal waste management practice and methods in Western Australia, and in particular:*
  - (a) *The function, effectiveness and efficiency of rural and Metropolitan Regional Councils with respect to the management of waste; and*
  - (b) *The role of the Waste Authority under the Waste Avoidance and Resource Recovery Act 2007 in municipal waste management.*
- 2 *Resource recovery technologies; and*
- 3 *Any other relevant matter.*

1.14 On 3 December 2008, the substance of Petition 59 was re-tabled in the Legislative Council by Hon Simon O'Brien MLC. That petition was referred to the Committee and was designated as Petition 17 in the 38<sup>th</sup> Parliament.

#### *Procedure*

- 1.15 The Committee advertised for written submissions from the public. The Committee received 68 written submissions over the course of both the initial inquiry into Petition 59 and the current inquiry. A list of written submissions is at **Appendix 1**.
- 1.16 The Committee held 21 hearings in relation to both the initial inquiry into Petition 59 and the current inquiry. A list of hearings is at **Appendix 2**.

#### **WASTE MANAGEMENT IN WESTERN AUSTRALIA**

*[W]aste is a material or mixture of materials that have been deliberately discarded by consumers who no longer have a use for them.*

*It follows, therefore, that for waste to become a product, it must have been substantially changed in some way such that its original characteristics no longer exist, and such that it assumes a value to an independent consumer.<sup>4</sup>*

- 1.17 Waste management in Western Australia is governed under the *Waste Avoidance and Resource Recovery Act 2007 (WARR Act)* (as discussed in Chapter 3). On 20 June 2008, the WARR Act and regulations were proclaimed by the Governor. Historically, management of waste was a public health issue. The *Health Act 1911* assigned

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<sup>4</sup> A.G.R. Manser and A.A. Keeling, *Practical Handbook of Processing and Recycling Municipal Waste*, CRC Lewis Publishers, New York, 1996, p334.

responsibility for collection and disposal of waste to local governments. The *Health Act 1911* also included powers covering the management of waste disposal sites.

- 1.18 During the period 2006/07, Western Australia generated 5,247,000 tonnes of waste of which 3,539,000 tonnes was disposed and 1,708,000 tonnes was recycled. This equated to a diversion rate of 33% which was the lowest for all mainland states in Australia. South Australia diverted 68% of its waste and Victoria had a rate of 63% of waste that was recycled.<sup>5</sup>

*Across Western Australia, the average rate of waste generation in 2004-05 was calculated at 2,707 kilograms [2.707 tonnes] per head of population, which is 35% higher than for NSW and Victoria. In addition, the average rate of resource recovery was 31.8% which is well below that for NSW and Victoria.*<sup>6</sup>

- 1.19 Waste management needs to be considered in the context of population growth. The following data from the Australian Bureau of Statistics indicates that population pressures will see a steady increase in domestic waste produced in Western Australia over the next decade:

**Table 1**

**Population growth in Western Australia<sup>7</sup>**

	As at 30 June 2007	As at 2021
Perth Metro Area	1,554,100	1,875,300
Rest of State	552,000	623,000
<b>TOTAL</b>	<b>2,106,100</b>	<b>2,498,400</b>

- 1.20 Waste that is just disposed to landfill has major environmental effects not just limited to the land immediate to the landfill. Land stabilisation post landfill closure takes approximately 30 years. During this time depending on various management techniques, leachate (liquid contaminants) leave the landfill and enter the groundwater. In Perth, due to the permeability of the soil, heavy metals and other contaminants can enter the ground water and pose risks to Perth's drinking supply. As

<sup>5</sup> Hyder Consulting, *Waste and Recycling in Australia - Final Report*, prepared for the Department of Environment, Water, Heritage and the Arts, Melbourne, November 2008, p17.

<sup>6</sup> *The Blue Book, Australian Waste Industry Report - 2007/08 Industry and Market Report*, WCS Market Intelligence and Waste Management and Environment Media, Sydney, 2007/08, p52.

<sup>7</sup> <http://www.abs.gov.au/Ausstats/abs@.nsf/mf/3222.0> (viewed on 4 May 2009); Australian Bureau of Statistics, *2008 Yearbook Australia*, ABS, Canberra, 2008, p186. 2021 projections based on 'B Series' (middle of the road) projections.

a result, all new metropolitan landfills are lined to control and remove leachate. However, the waste from old unlined sites is still leaking into the ground.

- 1.21 As the waste in landfill breaks down, due to the absence of air, methane is emitted from landfill. This greenhouse gas contributes to Australia's carbon emissions and increases global warming. Some landfill sites in Perth harness the methane emitted and use it to generate electricity. Without proper management of landfill, situations such as methane leaking into new housing can occur, as happened in Cranbourne Estate in Melbourne in 2008.
- 1.22 Waste is divided into three sectors: municipal, commercial and industrial (**C&I**) and construction and demolition (**C&D**). While the terms of reference of the Committee is to examine local government waste management, it is worth noting the percentages of waste generated, disposed and recycled respectively across these sectors in Western Australia:<sup>8</sup>

**Table 2**

**Generation, Disposal and Recycling Rates for Different Categories of Waste**

	Municipal	C & I	C & D	Total
Generated (tonnes)	1,424,000	1,476,000	2,348,000	5,247,000
Disposed (tonnes)	1,015,000	585,000	1,939,000	3,539,000
Recycled (tonnes)	408,000	891,000	409,000	1,708,000

- 1.23 Of the 5,247,000 tonnes of waste generated in Western Australia during 2006/07, only 27% of the total waste generated came from municipal sources.
- 1.24 Nevertheless, municipal waste is a potentially significantly greater threat to the environment than the other categories of waste. Whilst much of industry waste is essentially inert (that is, lacking in active chemical or biological properties), municipal waste tends to have an extremely high organic content. Approximately two thirds of municipal waste consists of food waste and other organic materials.<sup>9</sup> As it

<sup>8</sup> Hyder Consulting, *Waste and Recycling in Australia - Final Report*, prepared for the Department of Environment, Water, Heritage and the Arts, Melbourne, November 2008, p19.

<sup>9</sup> Western Australia, Department of Commerce and Trade, *State Recycling Blueprint: A Plan to Halve Waste to Landfill in Western Australia by the Year 2000*, Perth, June 1993, p2.

decomposes, organic waste produces harmful gases such as methane, as well as leachate that may pollute groundwater.<sup>10</sup>

- 1.25 In response to the Committee asking him how Western Australia was performing in comparison with the rest of Australia in recycling rates generally and in resource recovery, the Chairman of the Waste Authority stated:

*Poorly. We are doing well with domestic collection, design and operation of landfills, diversion of organics and greenwaste, and implementation of secondary treatment.*

*We are doing OK with paper and metals, terribly with glass, and coping now with oils but our position is fragile. We could do a lot better with construction and demolition waste.*<sup>11</sup>

- 1.26 The Committee notes that Western Australia is disadvantaged by the size of the State and the geographical distribution of population and waste streams.

**Finding 1: The Committee finds that Western Australia is statistically the worst performing State in Australia with respect to both landfill use and the rate of resource recovery from waste material.**

**Finding 2: The Committee finds that the municipal waste is the most problematic of all waste categories, due to its approximately 70 per cent organic content and the resulting potential risk to the environment from leachates and powerful greenhouse gas emissions, such as methane.**

## ROLE OF THE LOCAL GOVERNMENT

- 1.27 There are 141 local governments in Western Australia. The Western Australian Local Government Association (**WALGA**) website states the following regarding the role of “local government”:<sup>12</sup>

*As one of Australia's three spheres of government (Federal, State, Local) Local Government is that sphere that most closely affects the*

<sup>10</sup> <http://www.wastenet.net.au/information/streams/organic> (viewed on 4 May 2009).

<sup>11</sup> Letter from Mr Barry Carbon, Chairman, Waste Authority, 9 April 2009, p2.

<sup>12</sup> [http://www.walga.asn.au/about\\_lg](http://www.walga.asn.au/about_lg) (viewed on 4 May 2009).

*daily lives of citizens. It is also referred to as elected Councils, Shires or Local Councils.*

...

*The work of Local Government is varied, but it touches almost all areas of our day to day life as citizens – whether we live in cities, towns or country areas.*

*The roles and responsibilities of Local Government differs from state to state, but generally include:*

- *infrastructure and property services, including local roads, bridges, footpaths, drainage, waste collection and management*
- *provision of recreation facilities, such as parks, sports fields and stadiums, golf courses, swimming pools, sport centres, halls, camping grounds and caravan parks*
- *health services such as water and food inspection, immunisation services, toilet facilities, noise control and meat inspection and animal control*
- *community services, such as child care, aged care and accommodation, community care and welfare services*
- *building services, including inspections, licensing, certification and enforcement*
- *planning and development approval*
- *administration of facilities, such as airports and aerodromes, ports and marinas, cemeteries, parking facilities and street parking*
- *cultural facilities and services, such as libraries, art galleries and museums*
- *water and sewerage services in some states*
- *other services, such as abattoirs, sale-yards and group purchasing schemes*

- 1.28 In 2006-07 the municipal waste service cost local government over \$130 million.<sup>13</sup> Local government runs landfills, and provides waste and recycling kerbside collection services, transfer stations, community education programs and recycling drop-off facilities.<sup>14</sup>
- 1.29 Due to the size of Western Australia, the spread of population to the north of the state and concentration of population in the Perth metropolitan area, there is abundance of types of local governments, a variety of physical sizes and populations served. For example: the Shire of Peppermint Grove, with a population of 1652 people, has an area of 1.5km<sup>2</sup>,<sup>15</sup> while the Shire of East Pilbara, with a population of 10,500 has an area of 371,696km<sup>2</sup>, which is larger than the state of Victoria.<sup>16</sup>
- 1.30 The Committee notes that the possibility of amalgamating local governments is often discussed in Western Australia. In the event of such amalgamations occurring, the Committee notes that it is important that existing contractual and administrative arrangements for waste management in any affected local governments is given due consideration.
- 1.31 In Western Australia, local governments have formed regional councils in the desire to regionalise the management of waste, and to achieve economies of scale in recycling and reduce costs between member councils.
- 1.32 Regional Councils are formed under Division 4 of the *Local Government Act 1995*. Under 3.61 of that Act:

*Two or more local governments (referred to in this Division as the participants) may, with the Minister's approval, establish a regional local government to do things, for the participants, for any purpose for which a local government can do things under this Act or any other Act.*<sup>17</sup>

- 1.33 There are eight regional councils in Western Australia. They are made up of the following local councils:

- Bunbury - Harvey Regional Council

City of Bunbury  
Shire of Harvey

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<sup>13</sup> Councillor Michael Aspinall, Chair, Municipal Waste Advisory Council, *Transcript of Evidence*, 26 March 2009, p1.

<sup>14</sup> Ibid.

<sup>15</sup> <http://www.peppermintgrove.wa.gov.au/shire.asp> (viewed on 22 April 2009).

<sup>16</sup> <http://www.eastpilbara.wa.gov.au/> (viewed on 22 April 2009).

<sup>17</sup> Section 3.61 *Local Government Act 1995*.



- 
- Eastern Metropolitan Regional Council
    - Town of Bassendean
    - City of Bayswater
    - City of Belmont
    - Shire of Kalamunda
    - Shire of Mundaring
    - City of Swan
  
  - Mid West Regional Council
    - Shire of Carnamah
    - Shire of Coorow
    - Shire of Mingenew
    - Shire of Morawa
    - Shire of Mullewa
    - Shire of Perenjori
    - Shire of Three Springs
  
  - Mindarie Regional Council
    - Town of Cambridge
    - City of Joondalup
    - City of Perth
    - City of Stirling
    - Town of Victoria Park
    - Town of Vincent
    - City of Wanneroo
  
  - Pilbara Regional Council
    - Shire of Ashburton
    - Shire of East Pilbara
    - Shire of Port Hedland
    - Shire of Roebourne
  
  - Rivers Regional Council
    - City of Armadale
    - City of Gosnells
    - City of South Perth
    - City of Mandurah
    - Shire of Serpentine-Jarrahdale
    - Shire of Murray
  
  - Southern Metropolitan Regional Council
    - City of Canning
    - City of Cockburn
    - Town of East Fremantle
-

City of Fremantle  
 Town of Kwinana  
 City of Melville  
 City of Rockingham

- Western Metropolitan Regional Council

Town of Claremont  
 Town of Cottesloe  
 Town of Mosman Park  
 Shire of Peppermint Grove  
 City of Subiaco

- 1.34 Over time, some regional councils have taken on functions other than waste management for their member councils, such as risk management, environmental services and governance.

*Over the past twenty-five years a majority of Western Australia's local Governments have formed constituted Regional Councils. Under the Local Government Act 1995, constituted Regional Councils have the same general functions of a local government including its legislative and executive functions, except as stated in section 3.66 of the Local Government Act 1995 (as amended)...*

*With the exception of the City of Nedlands, all metropolitan local governments are members of regional councils which initially had a special focus on waste management...*

*The Mid West Regional Council (MWRC) does not currently undertake a waste management role; however it will be submitting a strategic waste management plan, but it is not yet clear whether the regional council will be assuming an operational role for itself.<sup>18</sup>*

**Finding 3: The Committee finds that the waste collection services provided by local government in Western Australia are of a very high standard.**

**Finding 4: The Committee finds that the formation of regional councils in Western Australia has proven highly successful in creating economies of scale in the management of municipal waste.**

<sup>18</sup> Submission No 51 from Waste Authority, 13/02/2009, p112-13.

**WASTE INFRASTRUCTURE IN WESTERN AUSTRALIA**

1.35 The following table sets out the type and number of waste infrastructure facilities in the Perth Metropolitan Area:<sup>19</sup>

**Table 3****Waste Infrastructure in the Perth Metropolitan Area**

Type of Facility	Number
Class I (inert) landfills	12
Class II / III (putrescible) landfills	7
Class IV (hazardous) landfills	1
Inert “recyclers”	2
Inert “transfer / recycling” stations	3
Inert “transfer” stations	3
Putrescible transfer stations	9
Municipal MRFs	7
Major commercial MRFs	2
Municipal RRFs	2 (2 under construction)
Greenwaste processors	15

*Landfill*

1.36 In the mid 1970’s there were 28 sanitary landfill sites run by local governments in the Perth metropolitan area. A series of government initiatives between the 1980s and the 1990s led to virtually all of these sites being closed.<sup>20</sup>

1.37 There are currently seven landfills for putrescible waste in the Perth metropolitan area. Putrescible waste is material that includes organics and mixed waste. The landfills are Hopkinson Road, Henderson, Millar Road, Red Hill, Mindarie, South Cardup and

<sup>19</sup> Cardno, *Assessment of Waste Disposal and Material Recovery Infrastructure for Perth*, prepared for Waste Authority, Perth, December 2008, pvi.

<sup>20</sup> Waste 2020 - A Vision for the Future, *Towards Zero Waste*, Government of Western Australia, Perth, 2001, p2.

Alcoa Refinery Kwinana Landfill. According to the Waste Authority, metropolitan Perth currently has between 10 and 15 years of landfill left at current rates of disposal. Some landfills are lined to prevent the leaching of contaminants (leachate), and some use methane collection systems to prevent emissions.<sup>21</sup>

- 1.38 However, Western Australia is far behind other states in the use of lined landfill sites. While Western Australia banned the construction of new landfill sites on its coastal strip from 1990 due to the risk of groundwater contamination in areas used as drinking water catchments<sup>22</sup>, it has 101 unlined sites which is more than double the number of unlined sites in Victoria, New South Wales, South Australia and Tasmania, and just under double that of Queensland. The Committee notes that all 101 unlined landfill sites are located in rural or regional areas of Western Australia.

**Table 4**

**Landfill lining by number of sites, by state/territory<sup>23</sup>**

State/Territory	Lined	Unlined	Liner Status Unspecified	Total	Percentage lined (by number of sites)
VIC	42	16	0	58	72%
NSW	46	38	0	84	55%
QLD	47	53	0	100	47%
<b>WA</b>	<b>21</b>	<b>101</b>	<b>0</b>	<b>122</b>	<b>17%</b>
TAS	8	3	0	11	73%
SA	21	48	2	71	30%
NT				0	N/A
ACT				0	N/A
<b>Totals</b>	<b>185</b>	<b>259</b>	<b>2</b>	<b>446</b>	

<sup>21</sup> Submission No 51 from Waste Authority, 13 February 2009, p14.

<sup>22</sup> Hyder Consulting, *Waste and Recycling in Australia - Final Report*, prepared for the Department of Environment, Water, Heritage and the Arts, Melbourne, November 2008, p100.

<sup>23</sup> Ibid, p102.

**Table 5****Landfill lining by tonnes received, by state/ territory<sup>24</sup>**

State/Territory	Lined (Tonnes into)	Unlined (Tonnes into)	Liner Status Unspecified (Tonnes into)	Total Tonnes	Percentage Lined (by weight)
VIC	4,314,363	707,900	0	5,022,263	86%
NSW	4,231,050	2,211,671	0	6,442,721	66%
QLD	3,531,976	498,142	0	4,030,118	88%
<b>WA</b>	<b>1,237,256</b>	<b>1,966,060</b>	<b>0</b>	<b>3,203,316</b>	<b>39%</b>
TAS	235,850	185,200	0	421,050	56%
SA	1,115,980	141,795	22,000	1,279,775	87%

**Finding 5: The Committee finds that Western Australia is the worst performing State in Australia with respect to the lining of landfill sites.**

- 1.39 In addition, Western Australia receives more waste into unlined landfill sites than landfill sites, and is the only State to do so at a rate of 39% by weight going to lined sites. Other states receive more waste into lined sites and the unlined sites are mainly limited to regional areas. As a comparison, 88% of waste received in tonnes is put into lined sites in Queensland, which is the best performing State by comparison.
- 1.40 Guidelines that set out the requirements for different types of wastes that can be disposed of into landfill have been in existence in Western Australia since 1996. The most recent revision of the guidelines was in 2005; the *Landfill Waste Classification and Waste Definitions 1996* as amended in July 2005. The Committee was advised that the DEC is currently revising these guidelines prior to releasing a revision for public comment.<sup>25</sup>
- 1.41 In addition to the DEC guidelines, the *Environmental Protection (Rural Landfill) Regulations 2002* and site specific conditions contained in licences issued under

<sup>24</sup> Ibid.

<sup>25</sup> Letter from Mr Robert Atkins, Acting Deputy Director General - Environment, Department of Environment and Conservation, 15 April 2009, p1.

Part V of the *Environmental Protection Act 1986* stipulate management and performance monitoring conditions for landfills.<sup>26</sup>

*Material sorting facilities and material recovery facilities*

1.42 Material sorting facilities (MSF) or material recovery facilities (MRF) are used for recovering recyclable products from municipal waste. They are a basic form of waste treatment that separates easily recovered materials like plastic, paper, glass and ferrous and nonferrous metals.

1.43 Local government yellow topped bins get processed at material recovery facilities.

*Regional Western Australia*

1.44 A 2005 study on regional recycling found that only 58 of the 110 local governments in regional Western Australia recover traditional recyclable materials in at least part of the municipality, either by kerbside collection or drop off. More kerbside recycling occurs in the southwest of the State due to higher densities in population and proximity to Perth recycling markets.<sup>27</sup>

*In non-metropolitan areas, almost every town has its own landfill, mostly operated by the local council. Some regional landfills have introduced separation of recyclables, but this is still not the norm.*<sup>28</sup>

1.45 The Waste Authority's landfill levy, operated under the WARR Act only applies to landfills operating in the Perth metropolitan area.

1.46 A submission to the Committee raised concern that rural and remote facilities were not properly managing halogenated hydrocarbon substances which are capable of damaging the earth's atmospheric ozone layer. The submission suggested that this was in contravention of internationally binding agreements.<sup>29</sup> Proper management is not in place to prevent illegal dumping of these and other products.

*I am concerned that many smaller local government authorities do not have adequate provisions in place to ensure that all such defunct items are treated to remove and recover ozone-harmful halogenated hydrocarbons contained within and that the disposal of other such compounds, including but not limited to carbon tetrachloride, methyl chloroform, methyl bromide are also not released into the*

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<sup>26</sup> Ibid.

<sup>27</sup> BSD / Meinhardt, *Kerbside Recycling: Exploring Regional Transport Economics*, prepared for Department of Environment, Perth, February 2005, p13-14

<sup>28</sup> Ibid, p21.

<sup>29</sup> Submission No 33 from L.R. Anderson, 23 January 2009, p1.

*environment at land-fill sites. It should be noted that many land-fill sites in remote and regional W.A. are not fully manned or controlled to prevent surreptitious disposal of these gas-filled appliances or chemicals by a minority of the public. ...*

*I am concerned that there is little or no evidence of adequate and secure facilities in many rural and most remote land-fill sites for storage and subsequent removal of such items to centres where recovery, reprocessing or reuse may be undertaken. ...*

*I would encourage the Standing Committee to also include investigation into waste disposal regimes in remote aboriginal communities as I believe that waste management standards are either very poor or non-existent in these communities.<sup>30</sup>*

- 1.47 Indeed, most policies and management plans for waste in Western Australia only cover the Perth metropolitan area. Regional and remote areas are excluded from better and more sustainable policies. This is due to a number of factors, the principal ones being distance and population. Long distances to waste management facilities in regional and rural areas means that it is uneconomical to recycle waste effectively. Secondly, the distance to Perth for processing for waste that is collected by regional and rural local governments is too large for waste processing to be commercially viable. Also, low populations in regional and rural areas means that there is not the mass of waste to help with economies of scale for the development of better waste facilities. To that extent, it is acknowledged that statistical figures for Western Australia in relation to recycling and resource recovery will tend to be skewed unfavourably.

**Finding 6: The Committee finds that the issue of prohibitive transport costs in rural and regional areas with respect to recyclable waste could be resolved by appropriate extended producer responsibility schemes, such as container deposit legislation.**

**Finding 7: The Committee finds that a strategy needs to be developed to commercialise the products of resource recovery in rural and regional areas.**

#### ALTERNATIVE WASTE TREATMENT METHODS

- 1.48 There are three different ways to process waste material into usable components; thermal processing, biochemical processing and chemical processing. Thermal

<sup>30</sup> Ibid, p1-2.

processing is used in situations when the desired usable output is heat and power. Biochemical processing is used when the desired output is chemical feedstock like fertiliser, which is used for parks and farms. Chemical processes are used when the desired output is a fuel such as biodiesel or ethanol.<sup>31</sup>

- 1.49 The technologies incorporate processes whereby waste is separated into its component parts (either at home, the recovery centre or the transfer station), then the waste streams are sent for either recycling, further processing or to landfill.

*The organic component of the waste stream accounts for approximately 70 percent of municipal solid waste (MSW) collected through kerbside services in Western Australia. This equates to approximately 490,000 tonnes of waste annually.*<sup>32</sup>

- 1.50 There are currently two resource recovery centres in operation in Western Australia. The SMRC Bedminster RRRC at Canning Vale, and the Atlas facility in Balcatta, run for the City of Stirling.
- 1.51 The Mindarie Regional Council has just recently commissioned a resource recovery centre at Neerabup and the Anaeco Resource Recovery Centre plant for Western Metropolitan Regional Council is under a two stage construction process. Rivers Regional Council and East Metropolitan Regional Council are currently in the process of planning resource recovery facilities to serve their respective areas.

### **Biochemical Processing**

- 1.52 Biological Treatments are classified as either aerobic composting, anaerobic digestion or vermicomposting.

#### *Aerobic*

- 1.53 Aerobic digestion is waste that is processed with the presence of oxygen. This includes open window composting; when material is left out in the open to decompose. This method is the simplest method of treatment and is not suitable for use in suburban areas. Enclosed composting is a process where the material is composted in controlled atmospheric and moisture conditions through the use of drums, boxes, silos or vessels to hold, rotate and control the waste product. The Bedminster system used at the RRRC at Canning Vale is an example of an aerobic system.

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<sup>31</sup> Zero Waste SA, *Position Paper, Alternativewaste Technologies*, Government of South Australia, Adelaide, January 2006, p10.

<sup>32</sup> Submission No 59 from the Western Australian Local Government Association - Municipal Waste Advisory Council, February 2009, p40.



*The process encourages the development of colonies of bacteria, and is characterized [sic] by the generation of heat... Emissions from the process are usually limited to carbon dioxide, water vapor [sic], and occasional traces of ammonia... Residues are dry (30 to 40% moisture contents), dark brown to color [sic] and friable.[capable of being easily crumbled or reduced to powder].<sup>33</sup>*

### *Anaerobic*

1.54 Anaerobic digestion is a process where bacteria are added to biodegradable waste to convert the organic matter. It is done in the absence of oxygen by mixing the waste with water. The end product is a gas containing methane and carbon dioxide. There is considerable interest in the EU for developing facilities that use these technologies. There are five ways in which anaerobic digestion systems can be configured. They are either:

- a) wet or dry
- b) plug flow or fully mixed
- c) mesophilic<sup>34</sup> or thermophilic<sup>35</sup>
- d) single stage or multistage
- e) batch or continuous.<sup>36</sup>

Different processes used different combinations of the above methods.

### *Vermicomposting*

1.55 Vermicomposting is a process whereby worms are used to consume organic waste. This produces the highest quality end material. There is a facility outside Brisbane called Vermitech Redlands facility that operates using this method and it is the only one currently operating in Australia.

1.56 There are a number of biochemical processing facilities in Australia. This is the predominant method of resource recovery employed to manage waste.

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<sup>33</sup> A.G.R. Manser and A.A. Keeling, *Practical Handbook of Processing and Recycling Municipal Waste*, CRC Lewis Publishers, New York, 1996, p199.

<sup>34</sup> Designating or relating an organism, esp. a bacterium, which flourishes at moderate temperatures: *Oxford English Dictionary*, Oxford University Press, London, online edition.

<sup>35</sup> Requiring a high temperature for development, as certain bacteria: *Oxford English Dictionary*, Oxford University Press, London, online edition.

<sup>36</sup> Juniper, *Commercial Assessment - Anaerobic Digestion Technology of Biomass Projects*, England, June 2007, p7.

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**Thermal Processing**

1.57 Thermal processing of waste is a method where heat is used to breakdown waste:

*These technologies use the application of heat to decompose the waste and produce a stable residue for disposal. Municipal solid waste has a calorific value of about 11 mega joules (MJ) per tonne and a proportion of this energy may be recovered using these technologies, usually in the form of heat or electricity.<sup>37</sup>*

1.58 Thermal treatment is popular in colder climates. The treatment is used extensively in Europe as the heat output is used in homes for central heating. Thermal processing of waste has been used for thousands of years in the form of simple incineration.

1.59 There are three different types of thermal technologies available for processing waste, incineration or combustion, pyrolysis and gasification.

**Incineration**

1.60 Incineration in its basic form has historically been used as a way to dispose of waste rather than seek to use waste. Modern methods of incineration recover the energy embedded in the waste to use for heating purposes or electrical generation. As this is the most simplistic form of thermal processing, air pollution and waste products need to be managed properly.

*Flue gas from combustion contains water, combustion gases, oxygen and nitrogen. Air pollution is a critical consideration in incineration because of particulates and dust, NOx acid gases and dioxins, furans, polyaromatic hydrocarbons and heavy metals may be generated depending on the process, combustion temperatures and feedstocks.<sup>38</sup>*

**Pyrolysis**

1.61 Pyrolysis involves the heating of waste with that aim of achieving breakdown of the product at temperatures of between 350 - 800°C.

*The process is conducted in the absence of oxygen, resulting in a reduction of energy and greenhouse gasses produced. The process produces a hydrocarbon rich gas mixture leaving an inert residue containing carbon, ash, glass, and non-oxidised metals. If the gas is allowed to cool, a hydrocarbon rich liquid will form. This liquid can*

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<sup>37</sup> Maunsel (2003), *Alternatives to Landfill - cost structures and related issues*, Environmental Protection Authority, South Australia, September 2003, p16.

<sup>38</sup> Zero Waste South Australia, *Position Paper, Alternativewaste Technologies*, Government of South Australia, Adelaide, January 2006, p13.

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*be used as a synthetic fuel oil with further processing... Pyrolysis does have many advantages however, including the retention of heavy metals in the char [a charred substance] rather than the ash from the combustion process... The process produces less toxic gases requiring further treatment and produces less.<sup>39</sup>*

### *Gasification*

- 1.62 Gasification involves the heating of waste to even higher temperatures than pyrolysis. Waste material is converted into combustible gases under extreme heat of around 1000°C. The combustible gas consists of hydrogen, methane and carbon monoxide.

*Gasification, when integrated with electricity production, proves to be economically and environmentally attractive. It produces less toxic gas than all other processes with the inert slag able to be used in the construction industry. The process has the potential to generate 500 - 600 kWh per tonne of waste with a lower cost than mass burn incineration.<sup>40</sup>*

### **Chemical Processing**

- 1.63 Chemical processing of waste uses a method of esterification to convert waste to biodiesel. It is used to process feedstock from forest harvestings, excess grain and other agriculture waste into a liquid fuel source. There is no reference to chemical processing being used in municipal waste management.

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<sup>39</sup> Municipal Engineering Foundation, *Future Directions in Alternative Waste Technologies* Victoria 2004. Sourced in Submission No 59 from the Western Australian Local Government Association - Municipal Waste Advisory Council, February 2009, p42.

<sup>40</sup> Submission No 59 from the Western Australian Local Government Association - Municipal Waste Advisory Council, February 2009, p42.



## CHAPTER 2

# THE PETITION INTO THE ODOUR EMANATING FROM THE REGIONAL RESOURCE RECOVERY FACILITY AT CANNING VALE

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### The Petition

- 2.1 As noted in Chapter 1, the RRRC at Canning Vale is a waste management facility built and operated by the SMRC. The SMRC is a statutory local government authority consisting of the councils of Canning, Cockburn, Fremantle, Melville, Rockingham, Kwinana and East Fremantle.
- 2.2 The RRRC was established at a cost of approximately \$55 million, and has recently been valued at between \$110 million and \$112 million.<sup>41</sup> In 2005 the SMRC became the first waste processing organisation in Australia to sell ‘Greenhouse Friendly’ certified carbon credits into the voluntary carbon trading markets.<sup>42</sup>
- 2.3 The Committee noted that the SMRC has won the 2007 Greenhouse Challenge Plus Award for its achievement in greenhouse gas abatement.
- 2.4 The Committee conducted preliminary inquiries into the matters raised in Petition 59 by gathering background information including writing to the principal petitioner and tabling Member inviting submissions on the issues raised in the petition.
- 2.5 The Committee received a letter from the tabling member, Hon Simon O’Brien MLC, which provided the following information:

*You will recall that I previously addressed the Legislative Council on this matter. In my remarks I set out the nature of the issue at hand, the importance of waste management services to the region and the concerns of some local residents - the latter being sentiments contained in the petition. Together with my more recent notes to the Committee, this is probably sufficient material to form my submission in connection with the petition.*<sup>43</sup>

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<sup>41</sup> Mr Stuart McAll, Chief Executive Officer, Southern Metropolitan Regional Council, and Councillor Doug Thompson, Chairman, Forum of Regional Councils, *Transcript of Evidence*, 26 March 2009, p5.

<sup>42</sup> Letter from Mr Stuart McAll, Chief Executive Officer, Southern Metropolitan Regional Council, 30 April 2009, Attachment 1, p2.

<sup>43</sup> Letter from Hon Simon O’Brien MLC, Member for the South Metropolitan Region, 6 July 2007, p1.

- 2.6 The Committee received a submission from the principal petitioner, Mr Rod Olsen which is critical of the RRRRC. The submission made a number of claims with the main focus being on what he describes as “*a vile and foul odour*”<sup>44</sup> coming from the waste composting facility at the RRRRC. The submission described the smell as follows:

*This atrocious odour varies but basically can be described as a very bad rubbish bin smell. This vile odour engulfs our neighbourhoods and parts of the suburbs of Willetton, Leeming, Bullcreek and has been reported at Murdoch Hospital, and generally within a 5 kilometre radius of the plant.*

*The foul odour is produced 24 hours every day, and it depends on the prevailing conditions as to who the unlucky residents are who have to put up with it. Some days and nights it is trapped under the temperature inversion that occurs regularly on cold evenings and mornings in these areas. On these occasions everyone gets the stink, and it can hang around for days on end. Other times the smell travels on the wind, so someone is always affected.*<sup>45</sup>

- 2.7 The submission claimed that the atmospheric pollution makes it impossible for the residents to enjoy their properties and their local amenities. The submission stated that the CMCOAG was formed in June 2006. The submission raised the issue of negative pressure:

*BUT the capacity of the fans will not ever be enough to create NEGATIVE PRESSURE, let alone maintain it when the roller doors are opened. It would seem the prevailing breezes can suck the foul air from the building through the many openings and penetrations because without negative pressure there is not enough inwards sucking force to override the natural conditions.*

*The building appears to leak like a sieve, and the only way to prevent the hot odorous air from escaping is to maintain the NEGATIVE PRESSURE.*

*It is a licence condition, and a commitment to the Minister, enforceable by law, that the building will be at all times maintained under NEGATIVE PRESSURE.*<sup>46</sup>

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<sup>44</sup> Letter from Mr Rod Olsen, 30 July 2007, p1.

<sup>45</sup> Ibid.

<sup>46</sup> Ibid, p4.

- 2.8 The submission from the principal petitioner concluded by calling for the waste composting facility at the RRRC to be relocated and then stated the following:

*It should never have been allowed to be located in a residential area. The [waste composting facility] has been a disaster of costly proportions both in value and health of human lives, and taxpayers' money.<sup>47</sup>*

- 2.9 At a hearing on 18 June 2008, Mr Olsen and Mrs Mandy Clarke gave the following evidence:

***Mr Olsen:** ... An unofficial action group—a group of residents—went to an SMRC meeting. It had called to say that it was going to spend \$2.4 million rectifying the problem and that once this was done, there would be no more problems. They could not guarantee it because they were still experimenting with different methods. It has shown and been proven that this odour keeps coming back, and the person who gets it is dependent on which way the wind is blowing. I live 1.5 kilometres away in Willetton. We used to enjoy the sea breeze when it came in; now we do not look forward to it at all because we are in a direct line and when the south westerlies come through, the smell comes. You can be driving down Ranford Road and you will smell it, yet you go home and it is not there—but if the wind switches around, then you have got it. It might be there for 15 or 20 minutes; it might be there for two or three hours depending on the weather conditions. In summer the easterlies blow the smell through Leeming. All these guys live a lot closer to it than me—as I say, I live 1.5 kilometres away—so they get the smell when the easterlies are blowing. If there is no wind at all, it settles over the whole area, especially on the really cold nights. The Jandakot basin, in meteorological terms, has a temperature inversion problem. The cold air is attracted to the area—the Jandakot area is one of the coldest places in Western Australia—and the hot air from the bio-filters is trapped underneath the cold layer and spreads through the whole suburb. On a beautiful night when there are reflections on the Swan River and everything like that, think of us out there because everybody is getting the smell.<sup>48</sup>*

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<sup>47</sup> Ibid, p5.

<sup>48</sup> Mr Rod Olsen and Mrs Mandy Clarke, *Transcript of Evidence*, 18 June 2008, pp2-3.

*Mrs Clarke: ... I, members of my family and other residents have experienced the following symptoms as a result of the odour that is being emitted from the RRRC waste composting facility: blood noses; extreme chest pain; elevated heart rates; dizzy spells; severe migraines and headache; rashes under our eyes and on our face; burning and peeling facial skin; burning eyes and runny noses; coughing, choking and gagging; nausea; and, sore neck glands. These are all common symptoms that residents experience when they are exposed to the odour from the RRRC waste composting facility. Most residents who complain of the symptoms have stated that they did not have allergy-type illnesses before they came in contact with the odour from the RRRC waste composting facility.*

*Our pets are also suffering as a result of the odour that is coming from the facility. They have experienced choking, gagging, runny eyes, terrible skin and inhalant allergies. Over the past few years residents have stated that some of their pets are falling victim to other medical conditions, one of which is cancer.<sup>49</sup>*

- 2.10 The Committee notes that the community response to the odour concerns resulted in a highly organised project by the CMCOAG to facilitate and record complaints. In addition to public meetings, a capacity for lodging online odour complaints was set up on a website: <http://www.cmcoag.com>.
- 2.11 The Committee wrote to the SMRC and to the Minister for the Environment for comment on the terms of the petition and the submission from the principal petitioner and the Committee requested additional information.
- 2.12 The Committee received a detailed response from the SMRC, which refuted many of the claims made by the principal petitioner.
- 2.13 The submission from the SMRC began by stating that the RRRC is a \$70 million waste management facility built and operated by the SMRC.
- 2.14 The Committee noted the following:

*The SMRC rejects the assertion in the pray of the petition that the facility “creates a noxious odour, affecting the health and lifestyle of the residents in the surrounding suburbs”.*

*While accepting the principle that citizens of Western Australia are entitled to use any language in a petition as long as it conforms to the standing orders of the House, we believe that the language of the*

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<sup>49</sup> Ibid, p12.



*petition is extravagant and it either intentionally or unintentionally gives a perception that the odour emissions from our facility are both continuous and harmful or injurious to residents. We also note that the petition is supported by 54 signatories, including a number from outside the vicinity of the RRRC, when the main subject of the petition is an odour that is said to be within a 5km radius.*

*It is our contention that it is essential in any assessment of our facility to clinically and scientifically assess what is being alleged what has occurred and what SMRC has done to rectify odour issues.*

*We do accept that from early to mid-2006 to early 2007, the RRRC's waste composting facility developed an odour problem caused by engineering and plant failures. We acknowledge that at times odours escaped beyond the boundaries of the facility. These odours were unpleasant and for a time impacted on the amenity of nearby residents.<sup>50</sup>*

- 2.15 The response by the SMRC detailed the work it undertook in relation to the odour problem, provided a brief chronology of events from whence the odour was first identified, and has provided some evidence that suggests considerable improvements in reducing the odour emissions from the site has occurred. The SMRC provided the following information on what it has done in terms of repairs and upgrading the RRRC:

*On the advice of the Department of Environment and Conservation (DEC) and the Department of Health, the SMRC engaged expert independent consultants The Odour Unit (TOU) to advise on measures required to eliminate the odour.*

*TOU recommended a range of actions to mitigate the escape of odour which have been implemented.*

*The SMRC has undertaken a \$2.4 million upgrade of the odour management systems at the waste composting facility. Works have gone beyond those recommended by TOU and ordered by the DEC:*

- *Reinstate the aeration floor fans 1 to 6 to their design speed/flows. Each of the aeration floor fans is now delivering its design airflow rate of 72,000m<sup>3</sup>/hr.*

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<sup>50</sup> Letter from Cr Doug Thompson, Chairman and Mr Stuart McAll, Chief Executive Officer, SMRC, 10 September 2007, p2.

- *Replace medium in Biofilters 1,2,3, and 4. A series of odour destruction testing has shown that the biofilters are now operating very well and removing all MSW (municipal solid waste) character from the untreated odour stream.*
- *Design and install a new foul air collection system for the aeration building. Testing of the new foul air collection system has shown that negative pressure conditions are being achieved throughout the building; any remaining fugitive odour emissions from the building are minimal.*
- *Incorporate in-duct spray humidification system into aeration building foul air collection system. A fine mist fogging system was installed and upgraded during the commissioning stage to improve humidification in the ducting. Testing results have shown that the system is effective in increasing the relative humidity of the foul air stream, further improving the performance of the biofilters.*
- *Repair the leaks between PVC air distribution plenum pipes and duct to all biofilters.*
- *Recycling and disposal of scrubber blow down liquors and excess leachate to ensure that tipping floor scrubbers are able to operate effectively.*
- *Reinstate the tipping floor fans to their design speed/flows. The fans are now operating at their design airflow rate of 55,000m<sup>3</sup>/hr. The tipping building is now operating under negative pressure conditions.*
- *Investigate the viability of increasing the humidification capacity of the tipping floor scrubbers. This investigation is complete and the scrubbers have been modified to increase humidification.*
- *Investigate the viability of increasing the fan speeds and capacities for the aeration floor fans. This has been evaluated and found not to be required, as the design fan speeds and airflow rates are providing negative pressure within the building.<sup>51</sup>*

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<sup>51</sup> Ibid, pp4-5.

- 2.16 The Committee received a response from Hon David Templeman MLA, Minister for the Environment. The response began by stating that he obtained advice from the DEC. The Minister stated the following:

*The petitioners wish to have the Waste Composting Facility (WCF) in Bannister Road, Canning Vale relocated. This is understandable, as the odour emissions from the facility have been problematic for several years. The Southern Metropolitan Regional Council (SMRC) provided DEC with an original proposal that predicted that odours should not impact on residential areas.*

*DEC has advised that significant work has been carried out at the facility to reduce odours, and that odours in the surrounding residential areas have been reduced in intensity and frequency, but may not have fully removed. SMRC's consultant, the Odour Unit, has indicated that if the plant is operating correctly, unreasonable odours should not be detected in the surrounding residential areas. There is evidence to suggest that the facility is close to achieving its design performance, however, there are still occasions when DEC has detected odours in residential areas and therefore considers that further work is required to resolve the odour emissions from the site.*

*DEC recommends that a further period of time to allow SMRC to rectify the odour emissions is warranted as the emissions have become less intense and less frequent. Should it be found that the SMRC facility cannot comply with its design performance with respect to odours, further enforcement action will be considered.<sup>52</sup>*

### **Department of Environment and Conservation 2008 Report**

- 2.17 In February 2008, the DEC commenced an investigation of the odour issues from the RRRC. From March to May 2008 an odour survey was conducted in the area surrounding the RRRC to determine if they were any adverse emissions. The methods used to measure the odour was by trained odour assessors who sniffed the air and conducted chemical sampling of the air using scientific equipment. The report concluded that:

*Results from the odour survey clearly indicated that the RRRC was the most significant source contributing to odours in the area. Odours associated with the RRRC had characteristics and intensities likely to be an annoyance and nuisance, supporting complaints from people in the area about odours.*

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<sup>52</sup> Letter from Hon David Templeman MLA, Minister for the Environment, 11 September 2007, p1.

- 2.18 The report was released on 31 October 2008. The unreasonable emission of odours is an offence under the *Environmental Protection Act 1986*, and as such the DEC gave the SMRC 21 days to produce a comprehensive plan to manage and remove the odours.
- 2.19 On 26 November 2008, the SMRC submitted a plan to the DEC which would determine if there was any source of odours being emitted from the plant.<sup>53</sup>
- 2.20 At the Committee hearing on 8 April 2009 the SMRC announced the following measures that were being taken at the RRRC to eliminate the odour issue:

*Mr McAll: We have instigated an odour management plan. We commenced that upon receiving the report from the DEC back in October last year. We are currently coming to the completion of that work. One of the significant steps that we have taken is to do research in the odour generated from our green waste facility. Our green waste facility is six times bigger than any other green waste facility in the metropolitan area. We did not understand the potential for odour generation from that facility. We undertook a report and I believe that we have submitted it to the committee for your evaluation. The findings of that report are outstanding—they have never been found before. The primary thing that we found is that the grinding operation can generate up to 600 000 or 650 000 odour units when it is in operation. The waste composting facility generates 75 000 odour units. We are talking multiples of seven times in terms of potential impact. It only happens, though, when the grinding machine is working—we now understand that. We have now got mitigation strategies to deal with that. The mulch that we produce—if we have 1 000 square metres out there, will generate somewhere in the order of 300 000 odour units; four times greater than the waste composting facility. That is a difficult one because it stays there all night and so it can be creating a significant odour. Our modelling has shown that it has the potential, under certain climate conditions, to impact on the community. What we have done as a result of that, we have stopped taking any green waste on site. We are currently developing management procedures to ensure that those odour generations do not occur through the green waste process facility. For example, the mulching machine, when it comes back on site, we will mulch into a shed so that we do not generate those odours. The actual mulch that we create will be removed within 24 hours. In fact, we will go to the point where we will remove the mulch that is generated on any*

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<sup>53</sup> <http://www.smrc.com.au/go/news>, (viewed on 24 April 2009).

*particular day off site that day so that there is no potential for an odour to be created.*

*The other outstanding piece of research that came out of this is the odour character. We took 56 samples of green waste odour and had them evaluated by specialists who can identify odour character, trained people. Of the 56 samples, 80 per cent of the odours that they classified could be confused with a waste composting facility. So it is our belief that the green waste may have been a significant contributor to some of the odours that have been picked up by the community and confused with the waste composting facility. However, having taken the green waste off site, so we eliminate that component of potential odour from the site, we are now taking ambient community surveys to see whether the waste composting facility has an impact on the community. It is a process of elimination.*

*Having said that, we have also been issued with an environmental protection notice—the green waste thing was not part of the environmental protection notice—to review the odour management systems within the waste composting facility; the green waste and the materials recovery facility. It is a very comprehensive analysis of the potential odour-generating sources on site. We are looking at the engineering, as well as the biological process that is happening, with a view to ensuring that the equipment that we have in place is sufficient to ensure that no fugitive emissions can get out and that our biofilters can handle the odour loads. Those reports will be presented to the DEC on 13 April as a requirement of the environmental protection notice. The SMRC will take those recommendations and develop an implementation plan and submit that to the Department of Environment by 28 April. I have seen some of the recommendations—they look good. They are basically making the system fail-safe so if we have a human error, the system will have alarms in it to minimise the opportunity for failure of the management system on site.*

**The CHAIR:** *You said that you stopped taking green waste. When did you do that? I think you might have mentioned it previously.*

**Mr McAll:** *We removed all the green waste off site on 24 March.*<sup>54</sup>

- 2.21 An issue raised by the SMRC was the lack of support they received from the State Government in researching possible engineering solutions to the odour problem:

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<sup>54</sup> Mr Stuart McAll, Chief Executive Officer, Southern Metropolitan Regional Council, *Transcript of Evidence*, 8 April 2009, pp1-2.

**Mr McCall:** *One of the issues that we face at the operational level is: we have a problem; how do we solve it; and what are we going to find when we have solved it? We have brought in a consultant to do that. Is that going to demonstrate that we actually have a problem, which DEC can, under section 90 of the [Environmental Protection Act 1986], take from us and then use it to prosecute us? This is an extremely difficult position that we are placed in, because we, the SMRC, and all the other [Forum of Regional Council] members, are working for the community, and we want to find a solution. However, we cannot put the community in jeopardy of prosecution by creating some work that will possibly lead to a prosecution. It is an issue that is very difficult, and we would certainly like to see that reviewed. It is something that is used in New South Wales. They do have an ability, under their environmental protection act, to undertake research and not have it held against them in legal proceedings.*

**The CHAIR:** *So you are in a catch-22 situation?*

**Mr McCall:** *It is extraordinarily difficult.*

**Hon KATE DOUST:** *You almost need something where you are demonstrating that you are actually doing the work to remedy the problem before any action can be looked at. You are actually seeking to resolve it without having to worry about being prosecuted.*

**Mr McCall:** *Correct. We have asked that that be reviewed. Whilst at an officer level within DEC they believe it is a good idea to be reviewed, from the legal department I understand it was rejected.*

...

**Mr McCall:** *If I may, one other piece of legislation within that is the ability to appeal the conditions of an environmental protection notice. Whilst we do have that ability to appeal, the decision that may come back from the minister will not occur for perhaps 10 weeks after we are supposed to have completed the work, and well past the appeal date; and, if we were successful in that appeal, we would have put in significant expenditure to meet the requirements of the [environmental protection notice] when we do not believe it was possibly correct. That is a significant burden. We have no option but to undertake the expenditure required under the environmental protection notice, but we do not have the opportunity to have that rationally discussed or reviewed until some time later. We must make*

*the expenditure. That is a big impost on the community—on the councils.*<sup>55</sup>

- 2.22 The Committee notes the abovementioned conflict of interest of the industry regulator also being one of the few sources of technical advice in the State, but is of the view that this problem could be addressed by strengthening the industry advisory role of the Waste Authority (which is discussed in Chapter 4).

### **YouTube Video**

- 2.23 During 2008, the SMRC took four videos of members of the SMRC and member local government councillors visiting areas surrounding the SMRC to determine whether they could smell any odours relating to the SMRC. The video showed the houses of people who were ‘serial complainants’ and the video operator (Councillor Thompson) asked if the group could smell any odours. The video shows that the councillors and SMRC could not smell any odours relating to the SMRC.
- 2.24 These four videos were subsequently posted on YouTube, an online video sharing website, for local government councillors to view. However, being a public website, members of the public, including many odour complainants, saw the video.
- 2.25 The Committee raised the issue with Councillor Doug Thompson:

*Hon KATE DOUST: ... I understand that a video was made by members of the SMRC and posted on YouTube for all of us to see. I wonder what science was behind that and what response you have had from the community, because I know that dealing with the community has been a very tough issue for you to manage. There are still ongoing complaints, and I would have thought that video was oil on the fire.*

*Councillor Thompson: Madam Chair, the video, in fact, was taken by me with my camera.*

*Hon KATE DOUST: So I understand.*

*Councillor Thompson: And I have the beauty of not appearing in it, whereas my fellow regional councillors and some of the officers do.*

*Hon KATE DOUST: We have seen their starring roles.*

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<sup>55</sup> Mr Stuart McAll, Chief Executive Officer, Southern Metropolitan Regional Council, *Transcript of Evidence*, 26 March 2009, p7.

**Councillor Thompson:** *Have you? I took the video because I had been out to the SMRC in response to email complaints maybe 20 or 30 times. When I first started getting those email complaints, I used to say, “Thank you very much”, and I would rush out and get the CEO and we would go out, and we would smell nothing. I would then send an email back saying that I had been out there. I used to get responses saying that I was not telling the truth and that it was a cover-up. Then I started writing reports when I went out there, and when I organised tours for the council members I took my camera to show that. If we had picked up smells, I would have—I would not have done anything with—I was using it as, kind of, evidence. I thought then I would put it on YouTube so that other members who were on there could see what it was. I put it up for a limited amount of time, and I told all the regional councillors, including members from Canning et cetera. I must admit I was surprised, given all the millions of videos on YouTube —*

**Hon KATE DOUST:** *Obviously the constituency in that part of the world are keen watchers of YouTube and were happy to forward it on to a number of us. I would have thought, given the problems you have had in your communications with people living in that area, that that video could be used in future as a good example of what not to do in terms of promoting good community relations.*

**Councillor Thompson:** *I think you are right.*

**Hon KATE DOUST:** *I tell you what: the emails that I received from people—with that video attached—indicate they were highly offended that people had stood outside their houses and pointed them out as being primary complainants. Having listened to the narrative of that video, you do not get a prize for that one. I think the SMRC has to have a good think about how it communicates effectively with its constituency in that area in trying to resolve some of these matters. I just want to put on the record, Doug, that I do not think that video helped at all.*

**Councillor Thompson:** *I have apologised for that. It was a misjudgement on my part, and I quite accept that. However, let me say that I have reviewed that video and I still believe that it is an accurate account of what occurred. While I apologise to people who were offended, and I regret the furore that it has created, I believe that it shows councillors carrying out their due diligence. Of the two*



*people mentioned, one was a Canning councillor. Yes, point taken. I accept that it was a mistake and probably did not help.*<sup>56</sup>

### **City of Canning Council**

2.26 On Thursday 19 February 2009, the City of Canning held a special council meeting. A motion was move and passed that:

*Following the advice and recommendation provided by Hardy Bowen Lawyers in its confidential advice of 19 February 2009, the Acting Chief Executive Officer be instructed to write to the Southern Metropolitan Regional Council (SMRC), instructing them under the provision of the Establishment Agreement, that:*

- (a) *The City of Canning withdraws from the SMRC immediately.*
- (b) *The City is not amenable to direction in relation to the delivery of waste, other than to the Regional Resource Recovery Centre (RRRC), and that if the RRRC is unable to accept the waste, it will be delivered by the City to a site of its choosing.*
- (c) *The SMRC be advised that the City is of the view that there is a dispute in relation to the obligations of the RRRC, having regard to:*
  - (i) *the economic sustainability of the facility; and*
  - (ii) *the environmental hazards caused by the facility;*

*which requires to be dealt with in accordance with the good faith negotiations in the Project Participants Agreement.*

- (d) *The City should initiate a dispute under the lease in relation to the odour emissions, with a view to determining whether there has been a breach of the lease.*

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<sup>56</sup> Councillor Douglas Thompson, Chairman, Forum of Regional Councils, *Transcript of Evidence*, 26 March 2009, pp11-12.

- (e) A further report be presented to Council outlining the progress of the above matters within one month.
- (f) A further report be presented to Council outlining a media campaign to the ratepayers of the City within one month of this motion<sup>57</sup>

2.27 Councillor Doug Thompson gave the following evidence as to the impact of the City of Canning's withdrawal from the SMRC and participation in the RRRC:

*Councillor Thompson: The impact for the SMRC is that a member is withdrawing. That member is part of the participants' agreement. My understanding—obviously we are looking at the legal implications at the moment—is that as set out under the process in the participants' agreement, the requisite amount of notice has been given and that will proceed. The matter is now between the member councils; it is not a matter for negotiation between SMRC and the Canning council, because SMRC is effectively the vehicle. I believe the answer to your question is that the SMRC is currently taking legal advice, and that advice will be given to the member council CEOs so they can take up the matter with Canning.*

*I am disappointed that this has happened with Canning. I understand why it has happened. It has lost a very experienced mayor, Mick Lekias; a very experienced CEO, a very experienced engineer, and some senior staff. In my view it is not a good decision for Canning, and it is certainly a decision that SMRC regrets. However, the withdrawal is now a matter between member councils and Canning.*

...

*Hon KATE DOUST: My other concern is where you stand on this matter, since Canning is the landowner on which the SMRC is sited.*

*Councillor Thompson: We have a lease with the council that runs for 50 years. From an SMRC point of view, whether Canning is a member or not makes no difference to that lease; the lease is a contractual obligation.<sup>58</sup>*

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<sup>57</sup> <http://www.canning.wa.gov.au/Shared/Meetings/Minutes19February2009SpecialP.htm>, (viewed on 24 April 2009).

<sup>58</sup> Councillor Douglas Thompson, Chairman, Forum of Regional Councils, *Transcript of Evidence*, 26 March 2009, p11.

### Committee Findings

- 2.28 The Committee notes that there have been odour problems associated with the RRRC, but also notes that technology is available to deal with that issue. For instance, the Committee received detailed evidence from witnesses representing GRD Minproc as to the existence of cost-effective engineering solutions to odour issues at the RRRC.<sup>59</sup>
- 2.29 The Committee also notes that, despite the Committee's concerns regarding issues of conflict of interest and overlapping jurisdictions as set out in Chapter 4, the DEC's enforcement processes were proven effective in this instance.
- 2.30 The Committee is of the view that the RRRC has been a significant landmark in waste management in this State, and notes the comments of the Chair of the Waste Authority regarding the management of the RRRC:

*We as a society have put an expectation on local governments that they change from throwing rubbish into a rubbish dump through to having a facility that does better. It is inevitable that there is a learning process, and there is no doubt that the SMRC has been a pioneer in doing that and in the diversion of waste and CO<sub>2</sub> capture. There are issues. I am not conceding that the odour issues necessarily come from the treatment plant, by the way. I have a fairly strong expectation that the current odours come from managing green waste in a pile next door to it, but that is something other people can deal with. In New Zealand, where I do have experience, prior to either people or local government doing it, they had efficiencies and expertise from private people doing it. But when they got to the stage of wanting to change some of their approaches, because society changed or there were infills, they found they were heavily constrained by long-term contracts. There are plusses and minuses. There is greater flexibility with a local government that is more answerable to its people. If you ask a private contractor to spend \$100 million—that is what you are looking at—you need to lock yourself into an ironclad long-term contract.<sup>60</sup>*

**Finding 8: The Committee finds that the community's concerns regarding odour issues at the Regional Resource Recovery Centre in Canning Vale were legitimate.**

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<sup>59</sup> Mr Rodney France, Process Consultant, Waste to Resources, and Mr Peter Kelsall, General Manager, Waste to Resources, GRD Minproc, *Transcript of Evidence*, 26 March 2009, p3 and pp8-9.

<sup>60</sup> Mr Barry Carbon, Chair, Waste Authority of WA, *Transcript of Evidence*, 26 March 2009, pp7-8.

**Finding 9: The Committee finds that the Southern Metropolitan Regional Council has taken steps to identify a technical remedy to address the community's concerns regarding odour from its Regional Resource Recovery Centre.**

**Finding 10: The Committee finds that there are cost effective engineering solutions to the odour issues at the Regional Resource Recovery Centre in Canning Vale.**

**Finding 11: The Committee finds that the Department of Environment and Conservation's enforcement powers achieved a positive result with respect to addressing the odour issues at the Regional Resource Recovery Centre in Canning Vale.**

**Finding 12: The Committee finds that the Southern Metropolitan Regional Council had a poor communication strategy with respect to its Regional Resource Recovery Centre and the ongoing concerns of the local community.**

**Finding 13: The Committee finds that there is a lack of coordinated and institutional support at the State Government level for the managers of resource recovery centres in the research and investigation of engineering solutions to address issues that may result in environmental enforcement action.**

## CHAPTER 3

### THE LEGISLATIVE FRAMEWORK

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#### WESTERN AUSTRALIA

##### *Waste Avoidance and Resource Recovery Act 2007*

3.1 The primary legislation dealing with metropolitan waste management in Western Australia is the WARR Act. The objects of the WARR Act are:

*... to contribute to sustainability, and the protection of human health and the environment, in Western Australia and the move towards a waste-free society by —*

- (a) promoting the most efficient use of resources, including resource recovery and waste avoidance; and*
- (b) reducing environmental harm, including pollution through waste; and*
- (c) the consideration of resource management options against the following hierarchy —*
  - (i) avoidance of unnecessary resource consumption;*
  - (ii) resource recovery (including reuse, reprocessing, recycling and energy recovery);*
  - (iii) disposal.*

*(2) The principles set out in the EP Act section 4A apply in relation to the objects of this Act.<sup>61</sup>*

3.2 The principles set out in s4A of the *Environmental Protection Act 1986* are:

*1. The precautionary principle*

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<sup>61</sup> *Waste Avoidance and Resource Recovery Act 2007*, s5.

*Where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.*

*In the application of the precautionary principle, decisions should be guided by —*

- (a) careful evaluation to avoid, where practicable, serious or irreversible damage to the environment; and*
- (b) an assessment of the risk-weighted consequences of various options.*

## *2. The principle of intergenerational equity*

*The present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations.*

## *3. The principle of the conservation of biological diversity and ecological integrity*

*Conservation of biological diversity and ecological integrity should be a fundamental consideration.*

## *4. Principles relating to improved valuation, pricing and incentive mechanisms*

- (1) Environmental factors should be included in the valuation of assets and services.*
- (2) The polluter pays principle — those who generate pollution and waste should bear the cost of containment, avoidance or abatement.*
- (3) The users of goods and services should pay prices based on the full life cycle costs of providing goods and services, including the use of natural resources and assets and the ultimate disposal of any wastes.*
- (4) Environmental goals, having been established, should be pursued in the most cost effective way, by establishing incentive structures, including market mechanisms, which enable those best placed to maximise benefits and/or minimise costs to develop*

*their own solutions and responses to environmental problems.*

*5. The principle of waste minimisation*

*All reasonable and practicable measures should be taken to minimise the generation of waste and its discharge into the environment.*

3.3 The Act establishes the “Waste Authority”.<sup>62</sup> The Waste Authority is an agent of the State and has the status, immunities and privileges of the State.<sup>63</sup> The Waste Authority comprises five members, who are appointed by the Governor on the recommendation of the Minister for the Environment.<sup>64</sup>

3.4 The Waste Authority has the following functions, along with a general function to do things that it determines to be conducive or incidental to the performance of a listed function:<sup>65</sup>

*1. To —*

- (a) advise and make recommendations to the Minister on matters relating to this Act; and*
- (b) inquire into and advise the Minister or the CEO [of the DEC] on any matter relating to this Act on which the Minister or CEO requests advice; and*
- (c) advise and make recommendations to the CEO [of the DEC] on the regulation of waste services; and*
- (d) advise and make recommendations to the CEO [of the DEC] with respect to subsidiary legislation under this Act.*

*2. To act as an advocate for the objects of this Act.*

*3. To develop, promote and review the waste strategy and coordinate its implementation.*

*4. To monitor and assess the adequacy of, and report to the Minister on the operation of, the waste strategy, product stewardship plans and extended producer responsibility schemes.*

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<sup>62</sup> Ibid, s8.

<sup>63</sup> Ibid, s9.

<sup>64</sup> Ibid, s11.

5. *To promote community awareness and understanding of resource efficiency, waste avoidance and resource recovery.*
6. *To support State and Commonwealth policies which will enhance progress towards zero waste.*
7. *To promote resource efficiency, waste avoidance and resource recovery.*
8. *To promote coordination between organisations seeking to prevent waste.*
9. *To liaise with local governments to ensure that the provisions of this Act are enforced in the districts of those local governments.*
10. *To cooperate with local governments to coordinate local efforts to prevent waste.*
11. *To receive representations on waste management issues from members of the public.*
12. *To promote market development for recovered resources and recycled materials.*
13. *To promote the development of locally owned resource recovery infrastructure.*
14. *To ensure that the appropriate investigations, audits and inspections in relation to the application of moneys from the WARR Fund are carried out.*
15. *To take appropriate measures to bring the provisions of this Act to the attention of the public.*
16. *To do such other acts and things as are conducive to the prevention and control of waste.*
17. *To perform such other functions as are conferred on it under this Act or are referred to it by the Minister.*

3.5 The Chief Executive Officer of the DEC is entitled to attend any meeting of the Waste Authority and to take part in the consideration and discussion of any matter before a meeting, but cannot vote on any matter.<sup>65</sup> The Minister for the Environment may give

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<sup>65</sup> Ibid, Schedule 2.

<sup>66</sup> Ibid, s13.



written directions to the Waste Authority, and the Waste Authority must give effect to any such direction.<sup>67</sup>

3.6 The Waste Authority has the following powers under s 20 of the WARR Act:

**20. Powers generally**

*(1) The Waste Authority has all the powers it needs to perform its functions.*

*(2) Without limiting subsection (1) the Waste Authority may for the purpose of performing a function —*

- (a) request the Minister to seek information on matters related to this Act from any other Minister and, on receipt of that information, to give it to the Waste Authority; and*
- (b) obtain the advice of persons having special knowledge, experience or responsibility in regard to any matter related to this Act; and*
- (c) consult and collaborate with appropriate entities, whether or not in the State; and*
- (d) conduct, commission, promote and support research into resource efficiency, waste avoidance and resource recovery and any other matter related to this Act; and*
- (e) publish reports relating to any matter arising under this Act, including reports on the Waste Authority's findings, advice, considerations and recommendations; and*
- (f) provide information to the public on any matter related to this Act.*

3.7 Sections 16 and 17 of the WARR Act set out the staffing and resource arrangements for the Waste Authority:

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<sup>67</sup> Ibid, s21.

**16. Provision of services and facilities**

(1) *The Minister must ensure that the Waste Authority is provided with such services and facilities as are reasonably necessary to enable it to perform its functions.*

(2) *Without limiting subsection (1), the Minister may, by arrangement with the Department, and on such terms and conditions as may be mutually arranged with the Waste Authority, allow the Waste Authority to make use, either full-time or part-time, of —*

- (a) *the services of any officer or employee employed in the Department; and*
- (b) *any services or facilities of the Department.*

(3) *This section does not limit section 17.*

**17. Use of staff and facilities of other departments, agencies and instrumentalities**

(1) *Without limiting section 16, the Minister may, by arrangement with the relevant employing authority, allow the Waste Authority to make use, either full-time or part-time, of the services of any officer or employee —*

- (a) *in the Public Service; or*
- (b) *in a State agency or instrumentality; or*
- (c) *otherwise in the service of the Crown in right of the State.*

(2) *Without limiting section 16, the Minister may, by arrangement with —*

- (a) *a department of the Public Service; or*
- (b) *a State agency or instrumentality,*

*make use of any facilities of the department, agency or instrumentality.*

(3) *An arrangement under subsection (1) or (2) must be made on terms agreed to by the parties.*

3.8 Those provisions establishing the Waste Authority came into effect on 1 July 2008. As soon as practicable after its commencement, the Waste Authority is required to prepare a draft waste strategy.<sup>68</sup> The purpose of the waste strategy is:

*... to set out, for the whole of the State —*

- (a) a long term strategy for continuous improvement of waste services, waste avoidance and resource recovery, benchmarked against best practice; and*
- (b) targets for waste reduction, resource recovery and the diversion of waste from landfill disposal.<sup>69</sup>*

3.9 In her second reading speech on the Waste Avoidance and Resource Recovery Bill 2007, the Parliamentary Secretary to the Minister for the Environment stated:

*One major area of activity of the Waste Authority will be in preparing a comprehensive, statewide waste strategy and coordinating its implementation. The waste strategy is vital for our move towards zero waste in Western Australia, as it will set clear targets for waste reduction and resource recovery, and set out a clear plan of continuous improvement to achieve those targets, benchmarked against international best practice, while accounting for Western Australia's particular circumstances.*

*Our approach to the development of the strategy will be careful and collaborative. A draft strategy will be prepared, with appropriate consultation; and, once it has been approved by the minister, it will be released for public comment for 12 weeks. Submissions will be received, and the draft may be modified. The Waste Authority will then submit to the minister the modified draft strategy, copies of the submissions and a report on the submissions. The minister may require amendments. Once the minister approves the waste strategy, it will come into effect and will be a public document. The waste strategy must be reviewed every five years, or more frequently if the minister so directs, although there are provisions for minor amendments to the strategy, with appropriate reporting, outside the formal review process.<sup>70</sup>*

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<sup>68</sup> Ibid, s25.

<sup>69</sup> Ibid, s24.

<sup>70</sup> Hon Sally Talbot MLC, Parliamentary Secretary to the Minister for the Environment, Western Australia, Legislative Council, *Parliamentary Debates (Hansard)*, 20 November 2007, p7347.

- 3.10 The WARR Act also deals with interaction between the Waste Authority, the DEC and waste producers, particularly with respect to extended producer responsibility schemes.<sup>71</sup>
- 3.11 The WARR Act provides powers of search and inspection for inspectors of the DEC, and various offence provisions.<sup>72</sup>

*The WARR Act and the Local Government Act 1995*

- 3.12 The WARR Act confers the main responsibility for waste management on local government.
- 3.13 The *Local Government Act 1995* does not specifically refer to waste management. The only express mention of waste is in relation to a local government's power to issue a notice to a occupier of land requiring the removal of rubbish.<sup>73</sup>
- 3.14 The functions of a local government, as set out in ss 3.1 and 3.2 of the *Local Government Act 1995*, are of a general nature:

**3.1. General function**

*(1) The general function of a local government is to provide for the good government of persons in its district.*

*(2) The scope of the general function of a local government is to be construed in the context of its other functions under this Act or any other written law and any constraints imposed by this Act or any other written law on the performance of its functions.*

*(3) A liberal approach is to be taken to the construction of the scope of the general function of a local government.*

**3.2. Relationship to State Government**

*The scope of the general function of a local government in relation to its district is not limited by reason only that the Government of the State performs or may perform functions of a like nature.*

- 3.15 A local government may make local laws prescribing all matters that are required or permitted to be prescribed by a local law, or are necessary or convenient to be so

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<sup>71</sup> Waste Avoidance and Resource Recovery Act 2007, Part 5.

<sup>72</sup> Ibid, Part 8.

<sup>73</sup> Local Government Act 1995, Schedule 3.1, Division 1, item 5A.

prescribed, for it to perform any of its functions under the *Local Government Act 1995*.<sup>74</sup> Local governments perform an executive as well as legislative function:<sup>75</sup>

### **3.18. Performing executive functions**

(1) *A local government is to administer its local laws and may do all other things that are necessary or convenient to be done for, or in connection with, performing its functions under this Act.*

(2) *In performing its executive functions, a local government may provide services and facilities.*

(3) *A local government is to satisfy itself that services and facilities that it provides —*

(a) *integrate and coordinate, so far as practicable, with any provided by the Commonwealth, the State or any public body;*

(b) *do not duplicate, to an extent that the local government considers inappropriate, services or facilities provided by the Commonwealth, the State or any other body or person, whether public or private; and*

(c) *are managed efficiently and effectively.*

3.16 The Waste Authority’s waste strategy is to be implemented at the local government level under the WARR Act via the strategy’s interaction with individual local government “waste plans”:<sup>76</sup>

### **40. Waste plans**

(1) *In this section —*

***plan for the future*** means a plan made under the *Local Government Act 1995* section 5.56.

(2) *A local government may include within its plan for the future a waste plan outlining how, in order to protect human health and the environment, waste services provided by the local government in the*

<sup>74</sup> Ibid, s 3.5(1).

<sup>75</sup> Ibid, s 3.18.

<sup>76</sup> *Waste Avoidance and Resource Recovery Act 2007*, s 40.

*relevant district will be managed to achieve consistency with the waste strategy.*

*(3) The waste plan may include —*

- (a) population and development profiles for the district;*
- (b) an assessment of significant sources and generators of waste received by the local government;*
- (c) an assessment of the quantities and classes of waste received by the local government;*
- (d) an assessment of the services, markets and facilities for waste received by the local government;*
- (e) an assessment of the options for reduction, management and disposal of waste received by the local government;*
- (f) proposed strategies and targets for managing and reducing waste received by the local government;*
- (g) proposed strategies and targets for the efficient disposal of waste received by the local government that cannot be recovered, reused or recycled;*
- (h) an implementation programme that identifies the required action, timeframes, resources and responsibilities for achieving these strategies and targets;*
- (i) such other matters as may be prescribed by the regulations.*

*(4) The CEO [of the Department of Environment and Conservation] may by written notice require a local government to include within its plan for the future a waste plan outlining how, in order to protect human health and the environment, waste services provided by the local government will be managed to achieve consistency with the waste strategy.*

*(5) The notice may specify a reasonable period within which the waste plan must be included in the plan for the future.*

*(6) The CEO may, on the request of a local government and at the expense of that local government, prepare a draft waste plan for that local government.*

- 3.17 The Chief Executive Officer of the DEC has wide powers to direct local governments to create a waste plan or include certain matters in an existing waste plan.<sup>77</sup> In certain circumstances the Chief Executive Officer may prepare a waste plan for a local government.<sup>78</sup> Section 43 of the WARR Act sets out the effect of a local government's waste plan:

***43. Effect of waste plan***

*(1) The CEO must have regard to the waste plan of a local government when exercising a function under this Act or any other Act that affects the operation of the waste plan.*

*(2) A local government must perform its functions in respect of waste management in accordance with its waste plan as existing from time to time.*

- 3.18 Some specific provisions of the WARR Act dealing with local governments are ss 50 and 55:

***50. Provision of waste services***

*(1) Subject to this Act and the EP Act, a local government may provide, or enter into a contract for the provision on its behalf of, waste services.*

*(2) A local government does not require a waste collection permit or an EP authorisation to collect or transport local government waste but is otherwise subject to the provisions of the EP Act.*

...

***55. Disposal of waste by local government***

*Subject to any prescribed exceptions, and to the EP Act, all waste received by a local government —*

- (a) becomes the property of the local government; and*

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<sup>77</sup> Ibid, s41.

<sup>78</sup> Ibid, s42.

(b) *may be destroyed, sold or otherwise disposed of by the local government.*

3.19 Under Part 6, Division 3, of the WARR Act, local governments may make, or may be directed by the Chief Executive Officer of the DEC to make, local laws regarding waste management. Under s 64 of the WARR Act, local laws may be made for the following purposes:

(a) *the provision and administration of waste services and related matters;*

(b) *the establishment, provision, use and control of receptacles for the deposit and collection of waste, whether temporary or otherwise;*

(c) *if a local government itself undertakes or contracts for removal of waste from premises, imposing on the owner or occupier of the premises requirements in connection with the removal so as to facilitate the removal, and prescribing the manner in which the requirement is to be complied with;*

(d) *if a local government or the holder of a waste collection permit does not itself undertake or contract for removal of waste from premises, imposing on the owner or occupier of the premises a requirement to remove waste from the premises, and prescribing the manner in which the requirement is to be complied with;*

(e) *if a local government itself undertakes or contracts for the removal of waste, requiring the waste to be placed in waste receptacles provided by the local government;*

(f) *prescribing intervals at which the contents of the receptacles will be removed by a local government;*

(g) *requiring the temporary placing of waste receptacles in streets or lanes by owners or occupiers of property for collection of waste, and requiring the replacement of the receptacles on the property;*

(h) *providing for the maintenance by owners and occupiers of waste receptacles provided by a local government;*

(i) *providing for the issue of approvals to collect local government waste and remove it from premises;*

(j) *fixing fees and charges in relation to waste services provided by a local government and the issue of approvals under paragraph (i), and*



*prescribing the persons liable and the method of recovery of amounts not duly paid.*

- 3.20 Section 66 of the WARR Act provides that local governments may impose annual rates on land within their districts for the waste services they provide, so long as:

*The annual rate must not exceed —*

- (a) *12 cents in the dollar on the gross rental value; or*
- (b) *where the system of valuation on the basis of the unimproved value is adopted, 3 cents in the dollar on the unimproved value of the land in fee simple.*

- 3.21 Under s 67 of the WARR Act, local governments may also impose a charge per waste receptacle in addition to rates under s 66. Other fees and charges may be imposed for waste related matters under the *Local Government Act 1995*.<sup>79</sup>

- 3.22 Section 69 of the WARR Act makes it an offence to collect local government waste in a local government district for fee and reward without authorisation, with a \$10,000 penalty and \$1,000 daily penalty applying. Under s 70 of the WARR Act it is a defence to the offence of hindering or obstructing the collection of local government waste if an occupier of land is “*collecting or using, selling or otherwise disposing of the occupier’s own local government waste*”.

- 3.23 The WARR Act also provides mechanisms for the occupier of land (with respect to a specific property) or the Chief Executive Officer of the DEC (with respect to any property) to take action against local governments in the event that local governments fail to properly manage the collection of waste from that property.<sup>80</sup>

*The WARR Act and the Waste Avoidance and Resource Recovery Levy Act 2007*

- 3.24 The *Waste Avoidance and Resource Recovery Levy Act 2007* imposes a levy on the receipt of waste by any premises that are required to be licensed for such a purpose. In her second reading speech on the Waste Avoidance and Resource Recovery Bill 2007, the Parliamentary Secretary to the Minister for the Environment stated:

*Since 1998 a levy has been imposed according to the amount of waste going to landfill. The primary purpose of the establishment of the landfill levy was to provide resources to fund projects for advancing waste reduction and recycling.*

...

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<sup>79</sup> Ibid, s 68.

*The name of the fund will be changed to the waste avoidance and resource recovery account, consistent with the name of the bill and the provisions of the Financial Management Act 2006. In many respects, the arrangements for the levy and account continue unchanged. However, they have also been updated. For example, with the advent of the Waste Authority, the authority will take responsibility for administering the account, which was formerly the role of the minister; and the Waste Authority can apply the moneys in the account in ways consistent with the approved business plan, or in other ways that are approved by the minister. Levy funds are to be used only for purposes provided for in the legislation. Specifically, the funds will be applied to programs relating to the management, reduction, reuse, recycling and monitoring of waste. The funds could be used by DEC only for administration of the account and developing or coordinating the implementation of programs consistent with the purposes of the legislation. The levy is not to be used to fund other normal ongoing operations of DEC.<sup>81</sup>*

3.25 The details of the levy are set out in the *Waste Avoidance and Resource Recovery Levy Regulations 2008*. In accordance with reg 4, the levy applies to:

- a) all waste received at landfill premises in the metropolitan region on or after 1 July 2008; and
- b) all waste collected within the metropolitan region, irrespective of when it is collected, and received at landfill premises outside the metropolitan region on or after 1 July 2008.

3.26 Certain exemptions to the levy apply under reg 5 for reusable or recyclable waste material.

3.27 The amount of levy that is payable under reg 12 for waste received at category 64 landfill premises (that is, where municipal waste is disposed of<sup>82</sup>) is:

[T]he amount (in dollars) equal to  $L$  in the formula —

$$L = (W \times 92\%) \times R$$

<sup>80</sup> Ibid, ss 71 and 72.

<sup>81</sup> Hon Sally Talbot MLC, Parliamentary Secretary to the Minister for the Environment, Western Australia, Legislative Council, *Parliamentary Debates (Hansard)*, 20 November 2007, p7348-9.

<sup>82</sup> *Landfill Waste Classification and Waste Definitions 1996 (as amended)*, Department of the Environment and Conservation, [http://www.dec.wa.gov.au/component/option,com\\_docman/Itemid,2123/gid,1454/task,doc\\_details/](http://www.dec.wa.gov.au/component/option,com_docman/Itemid,2123/gid,1454/task,doc_details/) (viewed on 16 April 2009).

where —

*W* is the number of tonnes of waste to which these regulations apply received at the landfill premises during the return period determined in accordance with regulation 8 or 9; and

*R* is, if the first day of the return period is —

(a) before 1 July 2009, \$7; or

(b) on or after 1 July 2009 and before 1 July 2010, \$8; or

(c) on or after 1 July 2010, \$9.

3.28 When it was first introduced in 1998, the landfill levy was \$3 per tonne for putrescible wastes and \$1 per tonne for inert waste.<sup>83</sup> In October 2006 the levy increased to \$6 per tonne for biodegradable waste and \$3 per cubic metre for inert waste.<sup>84</sup>

**Table 6**

**Western Australia's Landfill Levy<sup>85</sup>**

Date	Putrescible Landfill (Class II, III & IV)	Inert Landfill
1998 to October 2006	\$3/tonne	\$1/tonne
2006/07	\$6/tonne	\$3/m <sup>3</sup>
2007/08	\$6/tonne	\$3/m <sup>3</sup>
2008/09	\$7/tonne	\$5/m <sup>3</sup>
2009/10	\$8/tonne	\$7/m <sup>3</sup>
2010/11	\$9/tonne	\$9/m <sup>3</sup>

<sup>83</sup> <http://www.wastenet.net.au/issues/Legislation/landfilllevy> (viewed on 11 May 2009).

<sup>84</sup> Ibid.

<sup>85</sup> <http://www.zerowastewa.com.au/communication/news/article.php?artid=88> (viewed on 11 May 2009).

**Table 7****Comparison of Current Landfill Levies in Australian States**

State	Metropolitan Landfill	Non-metropolitan Landfill
New South Wales	\$58.80/tonne	\$10.00/tonne
South Australia	\$24.20/tonne	\$12.10/tonne
Victoria	\$9.00/tonne	\$7.00/tonne
Western Australia	\$7.00/tonne	no levy
Queensland	no levy	no levy
Tasmania	no levy	no levy

- 3.29 The Committee notes that there is some controversy in New South Wales regarding the fact that the bulk of the money raised by the landfill levy goes straight into consolidated revenue. It has been estimated that only \$13.25 million of the \$300 million raised from the levy has been applied to waste management programs in New South Wales.<sup>86</sup> By comparison, under the WARR Act, all monies raised by the landfill levy in Western Australia go into a specific fund and are spent only for the purposes set out in the WARR Act.
- 3.30 In the November 2007 review of the landfill levy, the question of possibly extending the landfill levy to the whole of the State was discussed:

*The Landfill Levy applies to wastes received at licensed landfill sites within the Perth metropolitan area or collected within the metropolitan area and disposed of at licensed landfills outside the metropolitan area. Extending the Levy to wastes generated and disposed of at non-metropolitan landfills may make sense from a general equity perspective, but from a capacity-to-pay perspective the impost of the Levy may be highly inequitable. Rural and regional centres are at a disadvantage in terms of financial and human resources, waste volumes, distance to markets for recovered and recycled materials and capacity to comply.*

*Enforcement of Landfill site standards would be a sensible step to take before imposing the Landfill Levy, followed by programs to*

<sup>86</sup> <http://www.insidewaste.com.au/storyview.asp?storyid=447929&sectionsource=s2634> (viewed on 11 May 2009).

*encourage reduction, reuse and recycling. There may be a case for imposing the Landfill Levy in larger regional centres, although this should be approached strategically in the context of waste management objectives, past and current waste management performance and consideration of a number of possible measures and instruments for improving performance, including the Landfill Levy. Differential levy rates operate in New South Wales for the Sydney metropolitan area, the extended regulated area and the rest of the state. The extended regulated area encompasses local government adjacent to the Sydney metropolitan area.*

*One feature of the Landfill Levy is that non-metropolitan councils have benefited from the Levy Funds through rebates and specific programs aimed at increasing resource recovery and reducing waste to landfill. This should continue through Levy funded programs. The stakeholders interviewed for this review were supportive of distribution of Levy funds outside of the metropolitan area.*

*Non-metropolitan landfill sites located close to the metropolitan area will require increased compliance monitoring and enforcement as the Landfill Levy increases.<sup>87</sup>*

- 3.31 The landfill levy generates approximate \$15 million annually.<sup>88</sup> The Waste Authority aims to allocate about half of this money each year to operations, grants, research, etc, and the other half to accumulate for expenditure on major items, possibly including infrastructure.<sup>89</sup>
- 3.32 The WARR Act contains provisions for the administration of the money received from the levy. Section 79 of the WARR Act establishes the Waste Avoidance and Resource Recovery Account (**WARR Account**), which is to be administered by the Waste Authority and is to be credited with:
- (a) *any levy paid; and*
  - (b) *any amount paid by way of penalty [for non-payment of the levy]; and*
  - (c) *income derived from the investment of moneys forming part of the WARR Account; and*

<sup>87</sup> Four Scenes Pty Ltd, *Landfill Levy Review*, Waste Management Board of Western Australia, 5 November 2007, pp23-24; [http://www.zerowastewa.com.au/documents/landfill\\_levy\\_51107.pdf](http://www.zerowastewa.com.au/documents/landfill_levy_51107.pdf) (viewed on 5 May 2009).

<sup>88</sup> Mr Barry Carbon, Chair, Waste Authority of WA, *Transcript of Evidence*, 26 March 2009, p1.

<sup>89</sup> Letter from Mr Barry Carbon, Chair, Waste Authority of WA, 9 April 2009, p3.

- (d) *any other moneys lawfully payable to the credit of the WARR Account.*

3.33 Section 80 of the WARR Act sets out how money from the WARR Account may be applied by the Waste Authority:

***80. Application of moneys in the WARR Account***

*(1) Moneys held in the WARR Account may be applied by the Waste Authority, in a manner that is consistent with the current business plan or is approved by the Minister —*

- (a) to fund programmes relating to the management, reduction, reuse, recycling, monitoring or measurement of waste; and*
- (b) to fund the preparation, review and amendment of the waste strategy, waste plans under Part 4 and extended producer responsibility schemes and the implementation of that strategy and those plans and schemes; and*
- (c) in payment of the costs of administering the WARR Account (including the costs of collecting levies and penalties and support and evaluation services).*

*(2) The Waste Authority must —*

- (a) seek the advice of such other entities as the Waste Authority thinks fit as to the setting and variation of a levy; and*
- (b) from time to time develop and publish a statement of the objectives to be achieved by programmes funded under this section.*

*(3) Moneys held in the WARR Account may be paid to an entity by the Waste Authority for the purposes of subsection (1)(a) on such terms and conditions as the Waste Authority thinks fit.*

- 3.34 In 2006-2007 the landfill levy was \$12.1 million. The then Waste Management Board of Western Australia's 2006-2007 expenditure of \$13,978,440 was allocated to the following programs:<sup>90</sup>

<i>Policy and Evaluation:</i>	<i>\$1,490,212</i>
<i>Stakeholder Programs:</i>	<i>\$2,694,583</i>
<i>Products and Materials Programs:</i>	<i>\$2,755,207</i>
<i>Communication and Behaviour Change Programs:</i>	<i>\$1,442,343</i>
<i>Waste Management and Recycling Fund Administration and Grants:</i>	<i>\$5,075,843</i>
<i>Board and Branch Coordination:</i>	<i>\$520,252</i>

- 3.35 More detailed and up-to-date financial data is set out in **Appendix 3** of the report. The Committee noted that this data was not regularly published in a format that is easily accessible to the public.

- 3.36 The Chair of the Waste Authority advised the Committee that:

*In round figures, the authority has indicated it would like to spend about half of its annual income on operational things—like grants, studies and promotional activities—and the other half it would like to set aside for major activities. That might be the building of infrastructure or whatever. With money that we carried over from the previous waste board, we are at a stage where we have perhaps \$20 million in the bank.*<sup>91</sup>

## OTHER AUSTRALIAN JURISDICTIONS

### New South Wales

- 3.37 In New South Wales waste management is dealt with under the *Waste Avoidance and Resource Recovery Act 2001* (NSW), the *Protection of the Environment Operations Act 1997* (NSW) and the *Local Government Act 1993* (NSW). The legislation is much less detailed than the equivalent Western Australian legislation, but the key provision is the development of a waste strategy by the Director-General of the administering department, which:<sup>92</sup>

<sup>90</sup> Waste Management Board of Western Australia, *2006-2007 Business Plan and Budget*, Waste Management Board of Western Australia, Perth, undated, p13; [http://www.zerowastewa.com.au/documents/wmb\\_busplan\\_0607.pdf](http://www.zerowastewa.com.au/documents/wmb_busplan_0607.pdf) (viewed on 5 May 2009).

<sup>91</sup> Mr Barry Carbon, Chair, Waste Authority of WA, *Transcript of Evidence*, 26 March 2009, p2.

<sup>92</sup> *Waste Avoidance and Resource Recovery Act 2001* (NSW), s 12.

- (a) *is to be based on continuous improvement and benchmarked against international best practice, and*
- (b) *is to include targets for waste reduction, resource recovery and the diversion of waste from landfill disposal, developed by an expert reference group appointed by the Director-General.*
- 3.38 The New South Wales “*waste and environment*” levy rates for the 2009-2010 financial year are:<sup>93</sup>
- a) Sydney metropolitan area: \$58.80 per tonne;
  - b) Extended regulated area: \$52.40 per tonne;
  - c) Regional regulated area: \$10.00 per tonne (flat rate);
  - d) Trackable liquid waste: \$55.70 per tonne.
- 3.39 Recent announcements by the New South Wales Government indicate that the Sydney metropolitan area landfill levy will rise to over \$128 per tonne by 2016.<sup>94</sup>

### **Victoria**

- 3.40 Victoria has no specific waste management legislation, but waste management issues are dealt with by the Environment Protection Authority under the *Environment Protection Act 1970* (Vic). The Victorian legislation includes provision for the development of a Metropolitan Waste and Resource Recovery Strategic Plan.<sup>95</sup>
- 3.41 The Victorian landfill levy increases progressively each year. The levies are set out in the table below (levies in \$ per tonne):<sup>96</sup>

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<sup>93</sup> <http://www.environment.nsw.gov.au/wr/index.htm> (viewed on 28 April 2009).

<sup>94</sup> [http://www.wme.com.au/categories/waste\\_management/mar3\\_09.php](http://www.wme.com.au/categories/waste_management/mar3_09.php) (viewed on 11 May 2009).

<sup>95</sup> Section 50B, *Environment Protection Act 1970* (Vic).

<sup>96</sup> [http://www.epa.vic.gov.au/waste/landfill\\_levies.asp](http://www.epa.vic.gov.au/waste/landfill_levies.asp) (viewed on 24 April 2009).



**Table 8****Victorian Landfill Levy**

<b>Municipal and Industrial Waste</b>				
	<b>Rural</b>		<b>Metro and Provincial</b>	
<b>Year</b>	<b>Municipal</b>	<b>Industrial</b>	<b>Municipal</b>	<b>Industrial</b>
2007-08	7	13	9	15
2008-09	7	13	9	15

3.42 Prescribed waste from manufacturing industries and contaminated soils is subject to a levy of \$26 per tonne.<sup>97</sup>

**Queensland**

3.43 Queensland has no specific waste management legislation, although some general provisions regarding waste management are set out in the *Environmental Protection Act 1994* (Qld).

3.44 Queensland has no landfill levy.<sup>98</sup>

**South Australia**

3.45 South Australia has no specific waste management legislation.

3.46 South Australia's container deposit legislation (**CDL**), contained within the *Environment Protection Act 1993* (SA) is unique within Australia, and has resulted in the recovery and reuse rates for beverage containers covered by the legislation that are above the national average:

*Local beer and soft drink manufacturers had for many years been practising their own form of voluntary recycling and return systems to recover and refill their bottles when the original laws were passed in 1975. Traditionally, South Australian consumers returned soft drink bottles to retailers and beer bottles to collection depots for refunds.*

...

<sup>97</sup> Ibid.

<sup>98</sup> [http://www.aph.gov.au/SENATE/committee/eca\\_ctte/aust\\_waste\\_streams/qon/qon\\_envnsw.pdf](http://www.aph.gov.au/SENATE/committee/eca_ctte/aust_waste_streams/qon/qon_envnsw.pdf) (viewed on 28 April 2009).

*When one-trip (non-refillable) beverage containers became common in South Australia in the 1970s, beverage manufacturers failed to introduce a return system for the containers as they couldn't be refilled and were no use to them. This led to 'single trip' beverage packaging becoming a highly visible part of the litter stream and posing a potential threat to the environment. Based on the 'polluter pays' principle and reinforcing the existing return systems developed by industry, the South Australian Parliament passed the Beverage Container Act 1975, which became operational in 1977.*

...

*As a result of its success, the government extended CDL in South Australia – effective 1 January 2003 – to a much broader range of beverages and containers, such as:*

- *flavoured milk and fruit juice in containers of less than one litre*
- *all non-carbonated soft (non-alcoholic) drinks in containers of three litres or less. Some of the beverages that fall within this category are vitamin drinks, energy drinks, iced teas and fruit juice drinks.*

*Additionally, previous exemptions for refillable glass soft drink bottles, glass containers for alcoholic and non-alcoholic cider and beverages similarly manufactured from the fermentation of fruit were repealed when the new regulations took effect.*

...

*CDL in South Australia continues to exempt certain beverages and their containers—such as plain milk, wine, fruit juice in containers of more than one litre, flavoured milk in containers of more than one litre, and any containers greater than three litres—because they are not generally consumed as take-away products and therefore do not usually contribute to the litter problem.*

...

*The recycling and reuse process has been set up by the establishment of companies called 'super collectors', who enter into contracts with collection depots and beverage manufacturers, distributors and wholesalers. The system guarantees that consumers are refunded and depots receive a handling fee. It also ensures that the responsibilities*

*of both producers and consumers are maintained, from production to the collection of the empty containers for recycling, reuse, or disposal for energy recovery.*

*The process is as follows:*

- *The beverage manufacturer/wholesaler enters a contract with a super collector, and pays deposits and handling fees to the super collector to establish a collection system to recover containers sold with a refundable deposit.*
- *The beverage manufacturer/wholesaler incorporates these costs in the price of the product when selling to the retailer.*
- *The retailer passes these costs on to the consumer (as part of the total price of the product).*
- *The consumer (or the person who has collected the container) takes it to a depot or retailer and collects the refund.*
- *When the container is returned to the super collector, handling fees are paid to the collection depot.*
- *Non-refillable glass containers are sold to a glassmaker for the manufacture of new bottles.*

*Aluminium, steel, liquidpaperboard and plastic (PET, PVC, HDPE) containers are recycled through markets sourced by the super collection agency.<sup>99</sup>*

3.47 The landfill levy for solid waste in the metropolitan area is \$24.20 per tonne. The non-metropolitan rate is \$12.10 per tonne. For liquid waste the levy is \$10.10 per tonne statewide.<sup>100</sup>

### **Tasmania**

3.48 Section 93 of the *Local Government Act 1993* (Tas) provides that local governments may make a service rate for a financial year on rateable land for any waste management services.

3.49 Tasmania has no landfill levy.<sup>101</sup>

<sup>99</sup> [http://www.epa.sa.gov.au/pdfs/info\\_cdl.pdf](http://www.epa.sa.gov.au/pdfs/info_cdl.pdf) (viewed on 5 May 2009).

<sup>100</sup> [http://www.aph.gov.au/SENATE/committee/eca\\_ctte/aust\\_waste\\_streams/qon/qon\\_envnsw.pdf](http://www.aph.gov.au/SENATE/committee/eca_ctte/aust_waste_streams/qon/qon_envnsw.pdf) (viewed on 28 April 2009).

<sup>101</sup> Ibid.

**Finding 14: The Committee finds that Western Australia has extensive and detailed waste management legislation, but lacks adequate regulations and administrative arrangements to drive waste management programs at the State level.**

**Finding 15: The Committee finds that there is a lack of detailed public information regarding the expenditure of funds raised from the landfill levy.<sup>102</sup>**

**Recommendation 1: The Committee recommends that the *Waste Avoidance and Resource Recovery Act 2007* be amended so as to require the Waste Authority to table in the Parliament each year a detailed financial statement setting out all expenditure of funds raised from the landfill levy.**

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<sup>102</sup> An example of the kind of detailed financial information that the Committee would like made more publicly accessible is at Appendix 3.

## CHAPTER 4

### THE WASTE AUTHORITY OF WESTERN AUSTRALIA

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#### State Waste Strategy

- 4.1 The statutory scheme for waste management in Western Australia as set out in Chapter 3 gives the Waste Authority a key, strategic, role in the development of waste management policy in Western Australia.
- 4.2 As noted in Chapter 3, the WARR Act requires the Waste Authority to develop a statewide waste strategy by 1 July 2009. The Chair of the Waste Authority advised the Committee that, with the assistance of officers of the DEC, a draft strategy had been produced.<sup>103</sup> The following details on the strategy were provided by the Deputy Chair of the Waste Authority:

*Hon PAUL LLEWELLYN: I do not want to pre-empt the WA waste strategy, but what kind of model are you proposing for WA? More specifically, how many officers would you need, and for how long, to complete the task of getting a complete waste strategy for Western Australia?*

*Ms Grimoldby: Thank you. The legislation requires that a draft waste strategy is presented and signed off by the minister, and then there is a three-month public consultation process during which time all the stakeholders have the opportunity to have input. We are pretty well at the point now at which the minister has signed off on it, and we are about to embark on the three-month consultation. We are employing consultants to run that, because it is a better option in terms of that separation, rather than using very limited staff time trying to be involved in a very extensive consultation.*

*Hon PAUL LLEWELLYN: Were consultants engaged also to put the strategy together?*

*Ms Grimoldby: To assist, yes. The consultants undertook some preliminary work and prepared an initial draft, and the Waste Authority then actually rewrote it, with assistance from two of the staff members from DEC.*

*Hon PAUL LLEWELLYN: Okay.*

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<sup>103</sup> Mr Barry Carbon, Chair, Waste Authority of WA, *Transcript of Evidence*, 26 March 2009, p4.

*Ms Grimoldby: Following the three-month consultation, the Waste Authority will have the opportunity to review and revise it, and then to seek another month's consultation on those amendments, at which point we will then provide it to the minister for signing off. Once it is signed off, we can develop a business plan for implementation. The draft, at the moment, has not undergone that three-month consultation.*

*In answer to your question about how long would it take, I do not believe that we are in a position to answer that now. I also think that it is fine to have a strategy, but it is a 10-year strategy. It will be reviewed after five years, and it will be an ongoing program. To consider that all waste will be dealt with effectively within 10 years, or that there would be no waste in 10 years, is probably not realistic. This particular draft strategy does not deal with some of the wastes that are covered in the Waste Authority's remit under the act. It does not deal with nuclear waste or agricultural waste.*

*In the draft at the moment there are a number of key dates that we believe will have a significant impact—particularly on construction, demolition and household organics—and that would be by 2014. That is the same date, I think, for a real shift in non-metropolitan waste management. While that is a very minor portion of the waste, we do have vast numbers of landfills in the non-metropolitan area that are no longer acceptable in terms of community standards. Dealing with that will be expensive, and it will be slow, and it will require bringing the local governments and the community with us.<sup>104</sup>*

4.3 The Chair of the Waste Authority outlined some of the Authority's plans for the future:

*There are things at about three or four different levels that would be delivered that are not now. Firstly, the changes in the WARR act removed any responsibility from the environment department for any activities relating to policy associated with waste. It would allow the Waste Authority to pick up, as stated in the act, policies about things such as extended producer responsibility, and about things such as whether there should be container deposit schemes, and, if so, how they should operate—all the implementation things that sit underneath that.<sup>105</sup>*

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<sup>104</sup> Ms Jan Grimoldby, Deputy Chair, Waste Authority of WA, *Transcript of Evidence*, 26 March 2009, pp5-6.

<sup>105</sup> Mr Barry Carbon, Chair, Waste Authority of WA, *Transcript of Evidence*, 26 March 2009, pp2-3.

4.4 The Committee expects that the State waste strategy will shortly be finalised.

### **The Waste Authority as a Source of Guidance for Local Government and Industry**

4.5 The Committee identified that there is a gap in the way in which waste management is managed in Western Australia, in that there is no clearing house for effective advice to local government and industry on waste management issues. The Committee was of the view that the Waste Authority may be able to provide such services, and lessen the burden on local government which must rely on its own developed expertise and on private consultancy firms. The submission from the Pilbara Regional Council stated:

*The [Pilbara Regional Council], hopefully with the support of the Waste Authority, is examining the feasibility of using emerging pyrolysis, gasification and plasma technologies in reducing waste going to landfill. These technologies are leading edge technologies and therefore have inherent first user risks associated with each. The [Pilbara Regional Council] believes that where local government shows initiative with respect to the use of emerging technologies that the State Government should partner with local government to share and assist mitigate risks and costs.<sup>106</sup>*

4.6 GRD Minproc submitted that the Waste Authority's role should go beyond strategy and policy development to leadership of industry in waste based resource recovery from planning to execution. It was argued that the Authority should be focussed on infrastructure delivery and be staffed by a multi-disciplinary team with expertise in infrastructure development and contract management.<sup>107</sup>

4.7 The Chair of the Waste Authority, however, noted some legislative and administrative hurdles to the Waste Authority taking on such a role:

*Mr Carbon: We would be able to give general advice, but the situation now is that the Environmental Protection Act, which has been added on to and added on to, provides about six or seven different mechanisms that the department can choose to use for coercive control, without any guidance. Then there is the WARR act, which again says this is the mechanism. Of course, under the WARR act, for a waste facility the expectation is that the coercive part of the department seeks advice from the Waste Authority on managing these issues. The department has not chosen to use that route for the SMRC, but that avenue sits there as a possibility. One of the*

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<sup>106</sup> Submission No 49 from Mr Allan Moles, Chief Executive Officer, Pilbara Regional Council, 12 February 2009, p2.

<sup>107</sup> Submission No 43 from Casey Cahill, Group Manager Corporate Affairs, GRD Minproc Limited, 12 February 2009, p13.

*recommendations in our report is that there is such a plethora of options—without, we think, an appropriate system of checks and balances—that we think that guidance on that point would be helpful.*

*There is also another body, the Environmental Protection Authority. In the case of the SMRC, the Environmental Protection Authority recommended to the minister the conditions that should apply to it. The minister set legally-binding conditions, and those conditions had within them a mechanism that sets out what should happen if something goes wrong. Those conditions have not been followed either. It has been chosen to go another way. It is a question of whether your objective is to set yourself up for a prosecution, or whether your objective is something different.*

**Hon KATE DOUST:** *Given that a range of different types of facilities are being established here, and given that you were fully staffed and able to do this, would part of your task be, perhaps, to provide guidance on the appropriate type of facility that could operate in Western Australia —*

**Mr Carbon:** *Yes.*

**Hon KATE DOUST:** *— rather than different types of setups being dropped in because that is the latest thing that is happening somewhere else? I would imagine that what might work well in Western Australia might work differently in New South Wales or Queensland.*

**Mr Carbon:** *Or in different parts of the world. I have a suspicion that Western Australians—indeed, all Australians—have shown a reticence towards waste-to-energy schemes that involve an incinerator, not necessarily because of technical reasons, but just because they do not like them. There is no doubt that since the 1995 inquiry into waste, with all the recommendations that this, this and this needs to be done, the first thing it said was that we need to start diverting green waste. That is happening extremely well, but unfortunately in the case of the SMRC I believe that the source of the most recent odours—or that is what they tell me—was not the actual resource recovery plant, but the green waste. The secondary treatment of waste is something that we are looking at as an objective for all of the metro regions as part of the strategy going forward. What is actually meant by secondary treatment keeps improving with all the developing technologies around the place. It is my experience that both industry and local government actually do better at doing*



*the technology than an advisory body that comes in says do this and do this. We can help, we can facilitate and we can provide seed money—as we do—for people to study things, but it is usually the doers who know more about how to do these things than we advisers.*<sup>108</sup>

### Extended Product Responsibility Arrangements

4.8 Pursuant to s 47 of the WARR Act, the Waste Authority must include in its business plan each year a priority statement with respect to any extended producer responsibility schemes the Waste Authority proposes to recommend for implementation and operation.

4.9 The Committee notes the following definition of “*extended producer responsibility*” from the June 2008 WALGA *Policy Statement on Extended Producer Responsibility*:

*The financial and/or physical co-responsibility of those involved in making, providing or selling a certain product for the management and disposal of that product at the waste phase. Extended Producer Responsibility schemes generally engage producers in financing or carrying out the collecting, processing, recycling or disposing of post-consumer waste. Extended Producer Responsibility schemes may also be directed at changing manufacturing practices.*<sup>109</sup>

4.10 The most commonly cited example of a successful extended producer responsibility scheme in Australia was the South Australian container deposit scheme.<sup>110</sup> It was submitted to the Committee that if a similar scheme operated in Western Australia, the SMRC alternative waste technology facility at Canning Vale would have been able to address the funding issues that it currently faces due to the fall in commodity prices and the sale of its recyclable materials:

*I was going to talk about the [container deposit levy (CDL)] and how the current issue that we have with the commodity price collapse is eliminated in terms of the financial component. If the SMRC had CDL set at the same level as, for example, South Australia, instead of making \$8 million a year the money that would flow back would be in the order of \$12 million to \$14 million. That would then create the issue of where does that product go. We would redeem the deposit. We would give financial certainty because the deposit rate coming*

<sup>108</sup> Mr Barry Carbon, Chair, Waste Authority of WA, *Transcript of Evidence*, 26 March 2009, pp6-7.

<sup>109</sup> Western Australian Local Government Association, *Policy Statement on Extended Producer Responsibility*, June 2008, p6.

<sup>110</sup> Ms Rebecca Brown, Manager, Waste and Recycling, Western Australian Local Government Association, *Transcript of Evidence*, 26 March 2009, p4.

*back is already preset. We would have to deal with the disposal of the product. The quality of the materials recovery facility that we use greatly improves the opportunity to move the product. That is critical to the efficiency and quality of the product that comes out at the back end. Today many materials recovery facilities are not able to move, for example, paper because it has too many contaminants in it and there are strict quality control issues. A whole pile of issues are required there, but CDL would certainly go a long way to solving some of our current issues.*<sup>111</sup>

- 4.11 It was the submission of WALGA that this was an extremely important aspect of the WARR Act, and an area where the State Government needed to take a greater role. WALGA undertook a problematic waste survey amongst local governments in June 2008, with the main types of identified problem wastes being electronic waste, household chemicals (such as paint), household goods (such as furniture), glass containers and drink containers.<sup>112</sup> Other problematic wastes that rated a significant mention in the survey were asbestos, tyres, used motor oil, commercial plastics, inert rubble and mattresses.<sup>113</sup>

#### *Electronic waste*

- 4.12 The issue of producer responsibility for electronic waste was particularly important to local governments:

*In order to recycle electronic waste, that is quite costly to do for a local government, even if you do try to regionalise. Local governments may not be the best place to bear that cost when the producer of the product is not really bearing any of the liability. They are putting their product onto the market with no thought about how it will be disposed of at the end of its life. For us, extended producer responsibility for a range of products is one of the key mechanisms to manage them.*<sup>114</sup>

- 4.13 Australian Bureau of Statistics data indicates that approximately 1.6 million computers are dumped in landfill in Australia each year, whilst another 1.8 million are stored away in a garage or office backroom.<sup>115</sup> Electronic waste differs substantially from the regular municipal waste stream as it is a complex mixture of materials and

<sup>111</sup> Mr Stuart McAll, Chief Executive Officer, Southern Metropolitan Regional Council, *Transcript of Evidence*, 26 March 2009, p10.

<sup>112</sup> Submission No 59 from Western Australian Local Government Association, 13 February 2009, p47.

<sup>113</sup> Ibid.

<sup>114</sup> Ms Rebecca Brown, Manager, Waste and Recycling, Western Australian Local Government Association, *Transcript of Evidence*, 26 March 2009, p3.

<sup>115</sup> Rob O'Brien, 'Playing the Waiting Game', *Government News*, April 2009, p23.

components, some of which can be harmful to both the environment and humans.<sup>116</sup> Computer monitors and laptops contain high amounts of mercury and lead.<sup>117</sup>

- 4.14 WALGA's submission notes that the City of Bunbury alone is currently collecting approximately one sea container full of electronic waste for recycling every three weeks (or 85 tonnes per year), at a cost of \$52,000 per annum.<sup>118</sup>
- 4.15 The Waste Authority advised the Committee that:

**Mr Carbon:** ... *E-waste sits high on the priority list.*

**Ms Grimoldby:** *It must be remembered that this is a draft that requires community consultation. The community might say that our time frames are too long. For example, I think the community is fed up with the inaction regarding container deposit systems. Discussion and work has been undertaken on container deposits on and off over the past 10 years in Western Australia. That requires regulation and government support. Similarly, with extended producer responsibility or product stewardship, e-waste certainly is identified as a priority product. It is a requirement under the act that we identify priority products.*

**Hon PAUL LLEWELLYN:** *Are you saying that by putting an up-front price on a waste stream, be it deposits for fridges or televisions, that at the back end we will see higher levels of responsibility and recycling?*

**Mr Carbon:** *That is the proposal in the draft strategy.*

**Hon PAUL LLEWELLYN:** *That is what you would imagine would happen?*

**Mr Carbon:** *Yes. An up-front deposit could be a collectable thing, which is a container deposit system, or a source of money, or an exemption for a company that is doing things properly. All of those suggestions are in the draft but it is necessary to regulate the system so that all the players play in the same sandpit. More than 100 people supply electronics in Western Australia. It is no good saying to the four or five that supply 60 per cent of electronics that they must play*

<sup>116</sup> Submission No 38 from Mr Bruce Bowman, State President, Waste Management Association of Australia, 6 February 2009, p9.

<sup>117</sup> Rob O'Brien, *Government News*, April 2009, p23.

<sup>118</sup> Submission No 59 from Western Australian Local Government Association, 13 February 2009, p16.

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*properly while the rest do not. There must be a cap to make sure that everybody plays the same game.*<sup>119</sup>

- 4.16 The Committee notes that the Commonwealth Environment Minister made the following announcement at the opening of recycling plant for computers and television sets in Western Sydney in November 2008:

*I have to say that at the recent [Environment Protection and Heritage Council (EPHC)] council meeting in Adelaide, environment ministers at the state level and myself agreed that the Commonwealth should begin to develop a national waste policy. This is an area that has been vacated by the Commonwealth in the past and I think it is time to accelerate our consideration of these issues. We expect to be bringing forward some material and research for Council to consider next year. We also want to bring forward a framework for the states to consider in terms of how we might better manage waste generally and have a national framework to deal with waste and on that basis it gives me very great pleasure to be able to be here this morning to open a plant of this kind.*

...

*We've specifically committed to working through the EPHC for a national waste policy. We're bringing a Regulatory Impacts Statement through on televisions and computers. We have specifically undertaken choice modelling to make that we're well equipped to produce in the COAG process, where these reforms are undertaken, strong arguments and have clear identification of the best options for us to take in terms of driving national policy.*<sup>120</sup>

- 4.17 The EPHC itself, which is comprised of Ministers, not necessarily environment Ministers, from participating jurisdictions (that is, the Commonwealth, State and Territory Governments, the New Zealand Government, and the Papua New Guinea Government), issued the following statement regarding e-waste in November 2008:

*The Environment Protection and Heritage Council (EPHC) recognises that many in the community, including industry, have a strong desire for action to ensure that end of life televisions and computers are appropriately recycled. Recycling these products delivers important environmental benefits, including energy (and*

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<sup>119</sup> Mr Barry Carbon, Chair, and Ms Jan Grimoldby, Deputy Chair, Waste Authority of WA, *Transcript of Evidence*, 26 March 2009, p9.

<sup>120</sup> <http://www.environment.gov.au/minister/garrett/2008/tr20081119.html> (viewed on 5 May 2009).

*greenhouse gas) and water savings, reduced demand for virgin raw materials, and a reduced demand for landfill space.*

*If 75% of the 1.5 million televisions that are discarded annually were recycled, this would amount to a national saving of approximately 23,000 tonnes of CO<sub>2</sub> equivalents, 520 mega litres of water, 400,000 gigajoules of energy and 160,000 cubic metres of landfill space. It is likely that computer recycling would generate similar or even greater benefits.*

*The Council also acknowledges that the television and computer industries have expended considerable effort and resources to develop and trial product stewardship schemes to collect and recycle their end of life products. Council applauds these efforts and particularly recognises the companies in these industries that have participated in and supported this work.*

*Council notes, however, that while most of the major players in these markets are willing and ready to act, some are not and the large numbers of small players and low profit margins creates strong incentives and opportunities for some companies to avoid taking responsibility. This makes it very difficult for these sectors to run self-regulated schemes, which is why they have sought regulatory support from governments to maintain a level playing field in the market.*

*Council has initiated action to investigate these regulatory options. This includes researching the nature and scale of the problems associated with landfilling end of life televisions and computers and the benefits of recycling them, identifying options for tackling the environmental problems created by disposal and analysing the costs and benefits of each possible solution. A key aim of this work is to establish whether the problems caused by end of life televisions and computers are significant enough to justify government intervention in the market and if so, to find the most efficient and effective approach to achieve this.*

*Council takes the issue of end of life televisions and computers very seriously. It is committed to ensuring the best possible outcome for the community by taking a decision based on the most recent and accurate information. Work is scheduled to be completed so that Council can take an informed decision on this issue in 2009.*

*The Council of Australian Governments (COAG) guidelines on Regulatory Impact Statements now require more quantitative*

*evidence of impacts and benefits to determine if government intervention would result in a net benefit to the community. This has required Council to research valuation methodologies that have not previously been used for waste issues and to gather data so that it can undertake a robust cost benefit analysis of its regulatory options. Council acknowledges that this work is taking a significant amount of time.*

*Once the current work is completed, Council will release the findings of the research, which will also provide an opportunity for the community to both understand and provide comment on the options for action, including the economic analysis underpinning it.*<sup>121</sup>

#### *Other problematic wastes*

4.18 Another type of waste that is increasingly problematic for local governments are compact fluorescent bulbs. At the time of the Commonwealth Government's moves to ban incandescent light bulbs, the Municipal Waste Advisory Council within WALGA indicated that whilst it supported the ban, there were resulting substantial waste management implications for an increased volume of compact fluorescent bulbs being disposed of in the municipal waste stream.<sup>122</sup> It is suggested by the Municipal Waste Advisory Council that a product stewardship arrangement incorporating industry responsibility for establishing and maintaining adequate compact fluorescent bulb collection and reprocessing infrastructure, along with a public education program on the correct method of disposing such waste, is the best way to deal with this issue.<sup>123</sup>

4.19 The Committee heard evidence that there were already some small-scale voluntary schemes in place where producers have taken action without regulation and put in place a scheme to manage their product:

*One example is a federal scheme, which is the drumMUSTER. That is for the chemical and agricultural drums in the non-metropolitan area. Local governments collect the drums and then the drumMUSTER scheme, through, I think, a levy on all products, arranges for those drums to be collected and recycled.*<sup>124</sup>

4.20 Such schemes, however, have limitations:

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<sup>121</sup> <http://www.ephc.gov.au/node/356> (viewed on 5 May 2009).

<sup>122</sup> Submission No 59 from Western Australian Local Government Association, 13 February 2009, p16.

<sup>123</sup> Ibid.

<sup>124</sup> Ms Rebecca Brown, Manager, Waste and Recycling, Western Australian Local Government Association, *Transcript of Evidence*, 26 March 2009, p3.

*The number of voluntary product stewardship schemes in Western Australia is relatively small. DrumMUSTER and ChemClear are probably some of the more successful ones, and Mobile Muster, through the mobile phone industry. But large-scale projects have not got up to this point. Part of the problem is this idea of orphans within the system, which basically means products that do not have a producer anymore; the producer has either gone bust or is just no longer around. There will always be a percentage of products that just do not have anyone to be responsible for them at the end of their lives. Part of the reason you would look at a regulatory mechanism is to ensure that whenever a product is sold onto the market, its disposal is assured. Another issue is free riders: if something is voluntary, there has to be a really good imperative for industry to be involved.<sup>125</sup>*

**Finding 16: The Committee finds that there is an urgent need for the establishment of product stewardship programs for electronic and other problematic wastes, such as glass and plastic containers, incandescent light bulbs, batteries, tyres, mattresses, paint and used motor oil.**

### **Interaction between the Waste Authority and the Department of Environment and Conservation**

#### *The regulatory role of the DEC*

4.21 The DEC has two broad areas of regulatory responsibility:

- a) under the WARR Act; and
- b) under the *Environmental Protection Act 1986*.

4.22 Under the WARR Act the Chief Executive Officer of the DEC may monitor and evaluate the performance of waste services in terms of effectiveness and efficiency and is required to seek advice from the Waste Authority on matters relating to the performance of a waste service.<sup>126</sup> The WARR Act also provides a range of other regulatory functions, such as monitoring compliance with the Waste Strategy and regulating waste plans and product stewardship plans.<sup>127</sup>

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<sup>125</sup> Ibid, p4.

<sup>126</sup> Letter from Mr Robert Atkins, Acting Deputy Director General - Environment, Department of Environment and Conservation, 15 April 2009, p1.

<sup>127</sup> Ibid.

- 4.23 Under the *Environmental Protection Act 1986* the Chief Executive Officer of the DEC has powers for the prevention, control and abatement of pollution and environmental harm.<sup>128</sup> The DEC thus has a regulatory role with respect to licensed premises under Part 5 of the *Environmental Protection Act 1986*. That is, licensing premises that are disposal sites for either the treatment or final disposal of waste and monitoring compliance with licence conditions to control emissions and discharges.<sup>129</sup>
- 4.24 An issue raised regarding DEC's regulatory role was the disincentives created amongst local governments to investigate new technology in waste management. Mr Stuart McCall, the Chief Executive Officer of the SMRC stated:

*One of the issues that we face at the operational level is: we have a problem; how do we solve it; and what are we going to find when we have solved it? We have brought in a consultant to do that. Is that going to demonstrate that we actually have a problem, which DEC can, under section 90 of the [Environmental Protection Act 1986], take from us and then use it to prosecute us? This is an extremely difficult position that we are placed in, because we, the SMRC, and all the other [Forum of Regional Councils] members, are working for the community, and we want to find a solution. However, we cannot put the community in jeopardy of prosecution by creating some work that will possibly lead to a prosecution.*<sup>130</sup>

#### *Staffing the Waste Authority*

- 4.25 The Committee received evidence that the Waste Authority is being severely hampered in undertaking such a role by resource limitations, particularly with respect to the lack of independent staff.
- 4.26 The Waste Authority has no staff of its own.<sup>131</sup> As noted in Chapter 3, ss 16 and 17 of the WARR Act state:

#### ***16. Provision of services and facilities***

*(1) The Minister must ensure that the Waste Authority is provided with such services and facilities as are reasonably necessary to enable it to perform its functions.*

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<sup>128</sup> Ibid, p2.

<sup>129</sup> Mr Robert Atkins, Acting Deputy Director General, Department of Environment and Conservation, *Transcript of Evidence*, 26 March 2009, p1.

<sup>130</sup> Mr Stuart McCall, Chief Executive Officer, Southern Metropolitan Regional Council, *Transcript of Evidence*, 26 March 2009, p7.

<sup>131</sup> Mr Barry Carbon, Chair, Waste Authority of WA, *Transcript of Evidence*, 26 March 2009, p1.



*(2) Without limiting subsection (1), the Minister may, by arrangement with the Department, and on such terms and conditions as may be mutually arranged with the Waste Authority, allow the Waste Authority to make use, either full-time or part-time, of —*

- (a) the services of any officer or employee employed in the Department; and*
- (b) any services or facilities of the Department.*

*(3) This section does not limit section 17.*

***17. Use of staff and facilities of other departments, agencies and instrumentalities***

*(1) Without limiting section 16, the Minister may, by arrangement with the relevant employing authority, allow the Waste Authority to make use, either full-time or part-time, of the services of any officer or employee —*

- (a) in the Public Service; or*
- (b) in a State agency or instrumentality; or*
- (c) otherwise in the service of the Crown in right of the State.*

*(2) Without limiting section 16, the Minister may, by arrangement with —*

- (a) a department of the Public Service; or*
- (b) a State agency or instrumentality,*

*make use of any facilities of the department, agency or instrumentality.*

*(3) An arrangement under subsection (1) or (2) must be made on terms agreed to by the parties.*

4.27 The Waste Authority submitted that it should be able to employ staff directly, rather than have staff assigned to it that do so as a secondary function to servicing and representing the DEC.<sup>132</sup> It was pointed out that the Zoological Parks Authority has

<sup>132</sup> Submission No 51 from Mr Barry Carbon, Chair, Waste Authority of WA, 13 February 2009, p26.

such a direct power to employ its staff under the *Zoological Parks Authority Act 2001*.<sup>133</sup>

- 4.28 The Waste Authority submitted that it had no person other than its five part-time members to represent it at senior levels of discussion or negotiation, or to oversee the implementation of its operational responsibilities.<sup>134</sup> Any advice that the Waste Authority wishes to provide to the Minister is first reviewed by the Chief Executive Officer of the DEC, as it is his staff that prepares the advice.<sup>135</sup> Similarly, although the WARR Act enables the Waste Authority to recommend to the Governor the making of regulations, Parliamentary Counsel's Office has refused to accept drafting instructions directly from the Waste Authority.<sup>136</sup>
- 4.29 The Chair of the Waste Authority advised the Committee:

*The [WARR Act] provides a mechanism whereby the Minister for Environment is to supply appropriate staff who are to be deemed officers of the Waste Authority. That function is left to the chief executive of the Department of Environment and Conservation to fulfil. So far, despite significant negotiations and attempts over a nine-month period, there are zero staff of the authority who are deemed to be officers of the Waste Authority. That does not mean that the staff of the department do not answer any questions or provide the best advice that they can give to the authority, but none of them are directable by the authority and none of them represent the authority at any meetings. Hence, we are largely unrepresented in activities around town. The Waste Authority itself is part time. I spend one day a week and my deputy spends half a day a week, and the others attend meetings one day a month.*

...

*The philosophy behind the [WARR Act] and, indeed, similar provisions under the Environmental Protection Act which preceded it, was that the levy was to be collected on activities that were essentially run by local government. The agreement between local government and state government then, and as represented in successive second reading speeches, was that the money would not be used to substitute for ordinary state government expenditure but would be used for special things such as the activities I have talked about.*

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<sup>133</sup> Ibid.

<sup>134</sup> Ibid, p27.

<sup>135</sup> Ibid, p29.

<sup>136</sup> Ibid, p30.

*In fact when the Waste Authority came into existence on 1 July, we discovered there were 50 staff at the Department of Environment and Conservation who were paid for out of the waste levy. Indeed, all of the staff on waste staff activities at the Department of Environment and Conservation are still nominally paid for by the waste levy fund. None of those staff represent the authority. I need to say, in case I do not get the opportunity to say it, that I think the staff are hardworking, well-intentioned and honourable people. I think they find themselves in a totally untenable position.*

...

*There is an estimate from the department, orally given, of about a \$5 million ticket for salaries for this year, but the Waste Authority six months ago, at its monthly meeting—and at every monthly meeting since—has asked the department for a statement of staff numbers and staff expenditure. To this date that has not been delivered. Three months ago, the Minister for Environment asked for that and for a prediction of staff expenditure next year. That has not been delivered. Indeed, I wrote to the chief executive of the department asking for a meeting to discuss a proposal to settle this issue of staff and costs—that was over a month ago—and that has not been responded to.*<sup>137</sup>

- 4.30 The Committee was advised by the DEC that its Waste Management Branch was established to support the Waste Authority and its predecessors to conduct their business.<sup>138</sup> The Waste Management Branch currently has 35 approved positions, of which 12 are vacant.<sup>139</sup> The DEC advised that:

*The vacancies are a result of the previous Waste Management Board resolution dated 10 April 2008 that no new staff be appointed until the new Waste Authority is in place. The Waste Authority once established advised that the previous Board resolution should stand until further advised. This was, I understand, an oral instruction not recorded in the Authority minutes. In addition to the staff of the Waste Management Branch itself, there are 5 staff in the Waste Wise Schools program and 2 staff in the Keep Australia Beautiful program funded by way of program funding grants approved by the Waste Authority.*

<sup>137</sup> Mr Barry Carbon, Chair, Waste Authority of WA, *Transcript of Evidence*, 26 March 2009, pp1-2.

<sup>138</sup> Letter from Mr Robert Atkins, Acting Deputy Director General - Environment, Department of Environment and Conservation, 15 April 2009, p2.

<sup>139</sup> *Ibid.*

*A Memorandum of Understanding and a Service Level Agreement between the Waste Authority and DEC to ensure the service provided met the Waste Authority's expectations is being negotiated.*

*In the meantime the DEC Waste Management Branch staff provide the executive support for the Waste Authority meetings and to the Chair, implement the programs within the Waste Authority's work plan and prepare policy advice for the Waste Authority.<sup>140</sup>*

- 4.31 With respect to staffing of the Waste Authority, Mr Robert Atkins, Acting Deputy Director General, DEC, also advised the Committee that:

***Mr Atkins:** The waste management branch of DEC was explicitly established to provide direct services to various waste advisory committees and waste management boards that predate the WARR act and the Waste Authority, and has been maintained to provide the direct services under section 16 of the WARR act for the Waste Authority. It had, at the commencement of this financial year, an establishment of 35 staff, and it currently has approximately 23 occupants.*

...

*[T]he waste management branch is explicitly established to provide direct services and support to the Waste Authority. Those arrangements are similar to the arrangements for the Environmental Protection Authority, which is another statutory authority that the department provides services for and that has DEC staff assigned to it as well. There is obviously in progress, as [The Chairman of the Waste Authority] raised, a memorandum of understanding and service level agreement that is being discussed between himself and the director general, which is obviously taking some time to reach finality in terms of its terms. But, in the meantime, the waste management branch is there for the Waste Authority and to act for the Waste Authority.*

***Hon KATE DOUST:** Is there a time frame for when those matters will be resolved?*

***Mr Atkins:** As soon as possible. Obviously, there are negotiations going on between the director general and the chairman of the Waste*

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<sup>140</sup>

Ibid.

*Authority. I am not directly privy to those negotiations. They will run their course and, ultimately, there will be an agreement signed.*<sup>141</sup>

- 4.32 The ongoing negotiations appear to have been drawn out by the difficulties in ascertaining the exact level of past funding of waste boards by the DEC:

*... we are talking about clarifying some accounting areas of funds expended on staff and staff support. In fact, the request that came to the department was not just staff and staff costs but all of the costs that could be debited to the waste account. There is quite a bit of work going on to do all of that. It is a bigger job than just looking at staff and staff costs. There is also an issue that quite a substantial amount of the staff on-costs in the provision of accommodation and corporate services have not previously been debited against the waste account by previous waste boards and they are a cost that is carried by the department. So there are some complexities, if you like, in answering the accounting question, but that is an accounting question; that does not prevent the waste management branch from providing the services that the authority needs.*<sup>142</sup>

- 4.33 WALGA has submitted that the finalised Service Level Agreement between DEC and the Waste Authority should be made public.<sup>143</sup>

*Funding of the DEC's activities out of the landfill levy*

- 4.34 The Waste Authority argues that the practice of the DEC seeking to access landfill levy funds for all waste activities of the DEC is in direct conflict with commitments given by the Minister for the Environment when the levy was introduced that only costs associated with the actual administration of the levy fund would be accessed.<sup>144</sup>

- 4.35 The DEC, however, argues that:

*DEC receives no additional appropriation to administer its responsibilities under the WARR Act. The second reading speech of the Waste Avoidance and Resource Recovery Bill 2007 refers to funds in the WARR Account being used to implement programs consistent with the legislation, but does not limit use of landfill levy funds to Waste Authority activities. DEC believes that it would be appropriate, and consistent with the intent of the legislation, for a*

<sup>141</sup> Mr Robert Atkins, Acting Deputy Director General, Department of Environment and Conservation, *Transcript of Evidence*, 26 March 2009, pp1-2.

<sup>142</sup> *Ibid*, pp5-6.

<sup>143</sup> Submission No 59 from Western Australian Local Government Association, 13 February 2009, p37.

<sup>144</sup> Submission No 51 from Mr Barry Carbon, Chair, Waste Authority of WA, 13 February 2009, p27.

*proportion of the landfill levy monies to be allocated to DEC for the purpose of fulfilling its regulatory functions under the WARR Act. This matter is still to be addressed between DEC and the Waste Authority.*<sup>145</sup>

*Uncertainty as to overlapping jurisdictions and conflicting priorities of the Waste Authority and the DEC*

- 4.36 In its submission to the Committee, the DEC noted that while the Waste Authority was established to advise the Minister on waste policy, the Minister on occasion seeks additional advice from the DEC and other sources: “Neither the Waste Authority nor DEC are the sole source of waste policy advice to the Minister.”<sup>146</sup> The DEC submission notes:

*The fact that the WARR Act specifically states that the CEO [of the DEC], or the CEO’s delegate, can attend Waste Authority meetings and take part in considerations of matters before the Waste Authority indicates that there was an intention that DEC and the Waste Authority would have a close and co-operative working relationship.*<sup>147</sup>

- 4.37 It was also noted by the DEC that the Minister for the Environment and the Director General of the DEC are involved in significant waste management issues at the Commonwealth level via the Environment Protection and Heritage Council. As such, national developments in waste policy need to be borne in mind in the development of State policy advice by the Waste Authority and the DEC.<sup>148</sup>

- 4.38 The Chair of the Waste Authority gave the following example of difficulties created by the overlapping roles of the Waste Authority and DEC in waste management:

*For example, there is a very acute situation right now in the waste industry with the global downturn. That is a really severe impact, something like a drop of to 40 per cent off the previous value for most recyclables. The Waste Authority wished to undertake an exercise that looked at how we could be involved, and the department specifically said, “No, that’s our responsibility. We are going to do that.” There is a whole series of activities right through from interaction across industry and the community by way of meetings. There are working groups being set up—for example, as recently as last week—which we*

<sup>145</sup> Submission No 53 from Mr Keiran McNamara, Director General, Department of Environment and Conservation, 13 February 2009, p4.

<sup>146</sup> Ibid, p3.

<sup>147</sup> Ibid.

<sup>148</sup> Ibid, p4.

*do not get to attend; we do not have staff. However, DEC does go, wearing its hat that it has chosen to wear, despite the fact that the act specifically says that it is the regulator, and it behaves as a regulator. A recent example is that the Kwinana Industries Council, which is looking hard at trying to find ways of using its waste products as a source material for other industries, is complaining to me on a regular basis that there is not an avenue into government to which it can say, "We would like help to make this happen", as opposed to dealing with somebody who says, "Our job is to regulate you and put constraints on what you want to do." I have absolutely no doubt in saying that the Waste Authority is not fulfilling the charter that is described in the Waste Avoidance and Resource Recovery Act and, indeed, is not capable of doing that in the absence of having any staff at all. It is just a joke.*<sup>149</sup>

- 4.39 Mr Carbon was particularly concerned that the staffing issue meant that the Waste Authority was not able to be involved in the current national discussions to establish the Australian position on extended producer responsibility towards resource recovery.<sup>150</sup> Ms Jan Grimoldby, Deputy Chair, Waste Authority, added the following:

*In terms of any actions in the past 12 months, there has been virtually nil. The difficulty continues to be that the staff are in such an invidious position of reporting essentially to two masters. Without that dedicated staff and without resolving those issues it is extremely difficult to proceed. What we may consider to be a policy priority is not necessarily what the department considers as a priority. Staff are leaving and that is a real concern. With the few staff we have access to, the numbers are being reduced. We actually have no arms or legs.*

*The issue that Barry raised about the Waste Authority not having access to input into the national discussions on things as important as extended producer responsibility are critical.*<sup>151</sup>

#### *Potential Conflict of Interest*

- 4.40 It was suggested to the Committee that there is a conflict of interest, real or at least perceived, in the DEC both being involved in the strategic direction and policy formulation role of the Waste Authority as well being the industry regulator.<sup>152</sup>

<sup>149</sup> Mr Barry Carbon, Chair, Waste Authority of WA, *Transcript of Evidence*, 26 March 2009, pp2-3.

<sup>150</sup> *Ibid*, p4.

<sup>151</sup> Ms Jan Grimoldby, Deputy Chair, Waste Authority of WA, *Transcript of Evidence*, 26 March 2009, p4.

<sup>152</sup> Submission No 46 from Mr Alex Sheridan, Chief Executive Officer, Rivers Regional Council, 13 February 2009, p7.

4.41 The Chair of the Waste Authority observed:

*I can understand that presumption because in the previous model, the model that existed before the WARR act, it was difficult to distinguish what were the functions of the department versus the functions of an advisory board. There was supposed to be a whole change of function and the department has continued, as it did previously, being the voice of government and government advice.*

*The very real issue is that there is an actual and perceived conflict between the regulator and being there to make the waste function work. Any of the department's websites specifically state that their job is not to expect the regulator to be their adviser. That is what you would expect from what is essentially a police function. That is okay, but there is a big void as a consequence of the impotence of the authority right now.<sup>153</sup>*

4.42 The Waste Authority also noted the current case of the SMRC, where the Waste Authority felt that it was constrained and unable to make public comment on, or give recognition to, the RRRC's significant achievements in the area of waste recycling and greenhouse gas abatement, because of the regulatory issues between the DEC and the SMRC.<sup>154</sup>

4.43 Mr Robert Atkins, Acting Deputy Director General, DEC, did not agree that there was such a conflict of interest:

*Mr Atkins: My personal opinion is that I do not see that there is a conflict of interest. The regulatory powers that the DEC exercises in this space are set out in two places: firstly, there are regulatory functions around the provision of waste services under the WARR act. I have explicitly mentioned section 53, but part 6 of the WARR act covers waste services. There are currently no resources assigned to those regulatory functions at this stage. When the WARR legislation passed through Parliament, there was not an appropriation from Treasury to establish the resources to implement those functions of the WARR legislation. That issue is yet to be resolved, bearing in mind that the WARR legislation has been in place only for some six months.*

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<sup>153</sup> Mr Barry Carbon, Chair, Waste Authority of WA, *Transcript of Evidence*, 26 March 2009, p4.

<sup>154</sup> Submission No 51 from Mr Barry Carbon, Chair, Waste Authority of WA, 13 February 2009, p30.



**Hon PAUL LLEWELLYN:** *Just to get that clarification, you are saying that there is no appropriation to implement part 6?*

**Mr Atkins:** *Yes, part 6 of the WARR act. The other regulatory functions in this space are under the Environmental Protection Act, which are obviously funded, and those functions are carried out by a different part of the department. The waste management branch is there to provide the services and the support for the Waste Authority and for the collection and administration of the landfill levy and the waste avoidance and resource recovery account, which holds those funds.*

...

*The WARR act has two parts to it, obviously—it has the regulation of services, and it has the policy function of the Waste Authority. The waste management branch is established to support the policy function of the Waste Authority and the administration of the fund. The functions of the Environmental Protection Act are not funded from the WARR account and are not carried out by the waste management branch; they are carried out by a different part of the department. Those functions do not overlap with the functions that regulate waste services under the WARR act. The issue of conflict that has arisen in this space is around the SMRC. I have made it clear to the SMRC board, and I will make it clear to this committee, that those regulatory functions are about control and management of emissions and discharges from the premises as a licensed premises under part 5 of the Environmental Protection Act. They are not in relation to the efficiency and provision of services for waste collection. In my opinion, section 53 of the WARR act is about functions related to the collection and disposal of waste. I would say that the SMRC is carrying out those functions adequately in terms of collection and treatment and disposal of waste. That is not in contention.<sup>155</sup>*

- 4.44 The Committee pursued the issue of the SMRC and the RRRC at Canning Vale as an illustrative case study as to how a conflict of interest may arise:

**Hon WENDY DUNCAN:** *... in the case of the SMRC who does it go to for advice and strategic guidance as to how to deal with its problem? If DEC is the regulatory body that may or may not prosecute the SMRC, then obviously it is difficult for DEC to then*

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<sup>155</sup> Mr Robert Atkins, Acting Deputy Director General, Department of Environment and Conservation, *Transcript of Evidence*, 26 March 2009, pp2-3.

*assist the SMRC in analysing what the problem is and helping them to resolve it.*

**Mr Atkins:** *It depends on which problem we are referring to. If we are referring to the problem of odour emissions from the premises, that is regulated by the department. The department has provided assistance to the SMRC in resolving that problem. ... That assistance has been provided in a number of ways. We have used environmental protection notices to require the SMRC to undertake investigations into sources and causes of the odour and to come up with solutions to those sources. Those notices provide adequate time to undertake that work. The department's staff review the documentation produced by the SMRC. In addition to that, we have had various experts, including air quality experts, working with the SMRC's consultants and viewing the consultants' approach to their analysis of the problem, and also joint site inspections of the facility.*

**Hon KATE DOUST:** *When you issue those notices and talk about solutions, do you actually offer a range of solutions to the SMRC that could be applied to that situation, or do you leave it up to them to arrive at the solutions themselves?*

**Mr Atkins:** *It is obviously the latter. It is up to the SMRC to investigate the source of odours and come up with solutions.*

**Hon KATE DOUST:** *Given DEC's experience, would it not have a range of solutions that you can recommend to deal with that issue, so that organisations such as the SMRC could expedite the matter? Sometimes if you leave it up to an organisation, they may not have had the level of experience or contact, and may not be aware of all of the types of solutions available. Surely that is part of your role as well, or is that something if the Waste Authority was operating at full capacity, they would be able to do that?*

**Mr Atkins:** *In reality the short answer to your question is no. The reason for that is that the department regulates over 900 premises around the state, ranging from premises as large as the gas liquification plants, down to — ... as simple as landfills. We do not have the technical experts that can understand the premises —*

**Hon KATE DOUST:** *But you employ 2 000 people in your department; surely you must have technical people that can offer that type of advice to industry?*

*Mr Atkins: We employ 2 000 people across the department. They cover a range of functions, from managing national parks and dealing with beached whales, through to regulating complex industries. All of those staff are not available for that one function. It is simply not possible for a regulator to employ a sufficient range of technical expertise to understand all industrial processes which it regulates. There is a consulting industry out there that has tremendous capacity to do that, and it is up to the industry itself to employ those consultants, with guidance and advice from the department, to address the problem.*

*Hon KATE DOUST: But even when WorkSafe issues notices on workplaces for unsafe practices, it offers solutions that could be picked up on as part of that notice. That is why I am saying that if you are issuing notices, surely you give that opportunity—but obviously you do not.*

*Mr Atkins: We give the opportunity of the person receiving the notice to engage suitably qualified consultants to do the investigation and to report. We negotiate with the receiver of the notice—in this case the SMRC—adequate time frames to do that. The way we do it is that we draft a notice, we send it informally to the SMRC with the time frames on it, and those time frames are open to challenge. We will then modify the notice to give practical but reasonable time frames that do not take too long but allow proper investigation, and then we issue the notice.<sup>156</sup>*

- 4.45 It appears to the Committee that the issues relating to both the number and independence of staff assigned to the Waste Authority have arisen from a lack of clarity in the financial arrangements surrounding the establishment of the Waste Authority.

### Committee Recommendations

**Recommendation 2: The Committee recommends that the Government resolve the issue of funding for staff and resources for the Waste Authority as a matter of urgency.**

<sup>156</sup> Ibid, pp3-4.

**Recommendation 3:** The Committee recommends that the *Waste Avoidance and Resource Recovery Act 2007* be amended to expressly limit the Department of Environment and Conservation's access to funds from the landfill levy to the offsetting of the actual administration costs of the landfill levy fund, and for other specified purposes to be set out in regulations.

**Recommendation 4:** The Committee recommends that the *Waste Avoidance and Resource Recovery Act 2007* be amended to enable the Waste Authority to directly employ its own management and other key staff.

**Recommendation 5:** The Committee recommends that the *Waste Avoidance and Resource Recovery Act 2007* be amended to clearly define that policy formulation in the area of waste management is the role of the Waste Authority and that environmental regulation is the role of the Department of Environment and Conservation.

**Recommendation 6:** The Committee recommends that the Department of Environment and Conservation should take measures to physically and administratively separate those staff of the Department that are tasked to assist the Waste Authority from all other Department staff.

**Recommendation 7:** The Committee recommends that the Waste Authority should take on a greater role in the provision of specialist waste management advice to local governments.

**Recommendation 8:** The Committee recommends that a main focus of the Waste Authority should be on the development of a multi-disciplinary staff with expertise in the areas of resource recovery policy formulation, infrastructure development and contract management.

## CHAPTER 5

### THE ROLE OF REGIONAL COUNCILS IN WASTE MANAGEMENT

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- 5.1 As noted in Chapter 3, the statutory scheme for waste management in Western Australia places the responsibility for waste management on local government. Due to the cost and administrative responsibility required to undertake large scale waste treatment infrastructure projects, regional councils have, out of necessity, become the most practical mechanism for such project development and facility management.
- 5.2 The obvious implications of the current responsibilities of local government are:
- a) whether local government is the most efficient body to have the responsibility for large scale waste management infrastructure projects;
  - b) whether waste management should be recognised in both legislation and planning documents as an essential service; and
  - c) whether there should be greater coordination between local government and external planning bodies in the location of development sites for future waste management facilities.

#### **Local Government and Waste Management**

- 5.3 The Committee noted concerns that local government was bearing a disproportionate responsibility for developing large-scale waste management infrastructure in the State, and that perhaps the State Government or industry could undertake such work more efficiently.
- 5.4 The Committee notes that Mr Simon Withers, the Mayor of the Town of Cambridge, reportedly stated in his address to a Committee for Economic Development of Australia breakfast that waste management was now “*beyond local government’s competence*” and should be taken over by the State Government.<sup>157</sup> Mr Withers was reported as follows:

*“At the moment you have a series of regional councils and they have each engaged a suite of consultants, spent a small fortune and each consultant has come up with a different solution (for handling waste),” he said.*

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<sup>157</sup> Mr Daniel Hatch, “‘Get tough’ on council reform”, *The West Australian*, 8 April 2009, p16.

*“We need to get the best brains in waste management and get them in one place, running the strategy for the whole metropolitan area at once so it is all under one scheme.”*

*He said rubbish facilities were often operated by regional councils which lacked accountability. He said a trip by 10 East Metropolitan regional councillors to Venice last year [to attend a waste management conference] was a prime example.*

*“If State Cabinet said ‘we’re all going to Venice’, there’d be howls of protest, it indicates the level of non-accountability these people are living in where they think they can do this,” he said.*<sup>158</sup>

- 5.5 The State Government currently has a role in waste management under the WARR Act via the activities of the DEC. The DEC’s website states:

*The Department of Environment and Conservation has a broad role in facilitating, promoting and implementing new approaches that recognise the complexity of reducing waste in our society. In undertaking that role, the department is responsible for developing policy in collaboration with the Waste Authority, and for undertaking, on behalf of the Waste Authority, projects to significantly reduce waste.*<sup>159</sup>

- 5.6 In addition, the Minister for the Environment participates in policy development at the Commonwealth level through the EPHC. The policy development role at the State and Commonwealth levels is particularly important in the development of support by industry for extended producer liability schemes.

- 5.7 The Chair of the Waste Authority was of the view that the current allocation of responsibilities was sufficient:

***Mr Carbon:** I think there is a role for state government through the Waste Authority to be strategic about looking at the long-term issues of planning for waste five, 10 or 20 years out. I strongly believe, however, that regional governments, supported by their respective local governments, are miles in front of us in state government on all the how-to things. I think they do it well. It is unfortunate that we are having this discussion in the shadow of an odour issue because I think that waste management in Western Australia has come a long way, and that most of the credit for it should go to local government and regional government in particular.*

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<sup>158</sup> Ibid.

<sup>159</sup> <http://www.dec.wa.gov.au/pollution-prevention/waste-management/index.html> (viewed on 5 May 2009).

*Hon WENDY DUNCAN: It was noted when we were in NSW that Western Australia is doing extremely well, especially considering our levy is so low compared with their levies, and it is because of the proactive nature of our local councils.*

*Hon PAUL LLEWELLYN: There are the economies of scale from forming regional alliances.*

*Mr Carbon: It is also the approach. There has been collectivism towards managing the issue, which is admired elsewhere.<sup>160</sup>*

5.8 Mr Carbon also stated that:

*I do think that it is an appropriate economic instrument to have the payment for waste management as close to local people as possible (ie with local government), in order to engage the feedback loops of user pays. Where the situation can become disproportionate is where it is claimed and implemented by some state government agencies that waste levies on local government waste management should be to pay for any waste activities by the state as part of 'user pays'!<sup>161</sup>*

5.9 Councillor Doug Thompson, Chair of the Forum of Regional Councils (**FORC**), stated that, in terms of cost efficiency, regional councils are probably not the most efficient mechanism for initiating resource recovery centres and other major waste management infrastructure projects:

*FORC would generally agree that the most efficient way of organising waste management would be at a state level and for the state government to take on that responsibility. Having said that, the regional councils would agree that they are probably in the best position to service the needs of their community, particularly in relation to behaviour, because waste management is as much about behaviour as it is about technology. It is about changing the way people view waste—that is, as a resource and not as something they need to get rid of. Local communities, in particular the regional organisations, are in the best position to engage their residents. I think they can engage their residents in a much better way than the state government can. That is no reflection on the state government. If you are looking for cost efficiencies and strategic direction, then*

<sup>160</sup> Mr Barry Carbon, Chair, Waste Authority of WA, *Transcript of Evidence*, 26 March 2009, p8.

<sup>161</sup> Letter from Mr Barry Carbon, Chair, Waste Authority of WA, 9 April 2009, p2.

*obviously waste management is an essential service. Essential services should really be provided by the state.*<sup>162</sup>

### **Waste Management as an Essential Service**

5.10 A number of submissions advocated that waste management should be defined as an “essential service”.<sup>163</sup>

5.11 The Chair of the Waste Authority gave the following evidence:

**Mr Carbon:** ... *the management of waste has been managed so well in most cases that it is taken for granted. We think that is pretty important because one of our recommendations is that waste should be collected and that the management of waste should be deemed to be an essential service. It is something that is as bread and butter to us as good health.*

**Hon WENDY DUNCAN:** *What are the implications of saying it should be deemed as an essential service; does that involve legislative change?*

**Mr Carbon:** *Yes; in the opinion of the authority, it needs recognition somewhere. For example, the Waste Authority believes that—this specifically relates to the SMRC—the capacity to turn off an essential service is something that should be done with an appropriate system of checks and balances.*<sup>164</sup>

5.12 It was also pointed out to the Committee that local government’s decisions regarding suitable site selection for waste facilities were often frustrated by the actions of external planning bodies that do not take waste management issues into account:

**Ms Grimoldby:** ... *The site selection process that has been undertaken in the past four or five years for resource recovery facilities has been extensive, arduous and detailed and has involved substantial consultation. The difficulty those resource recovery facilities will face is where their buffer zones, or their separation distances, are eroded through decisions made by external bodies such as the WAPC.*

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<sup>162</sup> Councillor Douglas Thompson, Chair, Forum of Regional Councils, *Transcript of Evidence*, 26 March 2009, p5.

<sup>163</sup> Mr Bruce Bowman, State President, Waste Management Association of Australia, *Transcript of Evidence*, 26 March 2009, p1.

<sup>164</sup> Mr Barry Carbon, Chair, Waste Authority of WA, *Transcript of Evidence*, 26 March 2009, p8.



*Hon KATE DOUST: We noted that in a couple of other states they are finding that a long-term waste recovery centre is now being encroached on by development, and they are waiting to see the impact of that. I note in your submission that you talk about buffer zones, and I think you make specific comment on the buffer zone area around the SMRC. I think the residential area, or part of it, was probably there prior to that facility going up anyway.*

*Ms Grimoldby: I am sure the SMRC submission can speak on that in more detail. That facility was basically built on a landfill, so the buffer zones have obviously changed. Similarly, in Armadale the Rivers Regional Council looked at putting a resource recovery facility on the Hopkinson Road landfill. There is housing well and truly within 200 metres of the tip face of existing landfill, but that land was reclassified to urban infill.<sup>165</sup>*

- 5.13 Strategic planning for waste management was seen as a major problem by local government. Whether it be planning for alternative waste collection sites in the metropolitan area in the event of a significant disaster or a temporary closure of an existing waste collection site, or whether it be including a waste management facility within the planning of a new suburb. Councillor Michael Aspinall, Chair of the Municipal Waste Advisory Council, told the Committee:

*I just do not think it comes into the consideration when they are looking at the development. They look at the town planning scheme. They see where they want to put the shops and everything else, but they do not consider where all the waste is going to go from these developments. The Department for Planning and Infrastructure does not have any particular guidelines for anything like that.<sup>166</sup>*

- 5.14 With respect to disaster-planning, Councillor Doug Thompson, Chairman of the FORC, gave the following recent example:

*As we move away from landfill as our major way of getting rid of waste, and as waste is increasingly seen to be a resource that is recoverable and has a value, the strategic nature of its interest and the effect that it can have on localities and the general public, in terms of not adequately planning for its provision, we believe collectively can be catastrophic. If I can give an example, Madam Chair: maybe 18 months ago there was a cyanide spill at the Rockingham landfill. One of the member councils sends its residual*

<sup>165</sup> Ms Jan Grimoldby, Deputy Chair, Waste Authority of WA, *Transcript of Evidence*, 26 March 2009, p7.

<sup>166</sup> Councillor Michael Aspinall, Chair, Municipal Waste Advisory Council, *Transcript of Evidence*, 26 March 2009, p7.

waste to the Rockingham landfill. That landfill was closed for four days. During that time, there were, quite literally, officers running around panic-stricken looking for places to dump the waste because they could not—when Rockingham closed, a significant landfill in the metro area went out of operation and you literally had truckloads of rubbish running around the suburbs looking for a home. That has really focused the attention of [the Forum of Regional Councils] on the implications of any significant part of the waste management infrastructure being put out of operation for any length of time.<sup>167</sup>

- 5.15 The Committee notes that there is no express legislative definition of what amounts to an “essential service”. The *Radiation Safety Act 1975*, the *Town Planning Regulations 1967* and the *Hope Valley-Wattleup Redevelopment Regulations 2000* all refer to “essential services”, but do not define them, although in the context it would appear to be referring to water, electricity, gas and possibly telephone services. Section 27(3) of the *Criminal Investigation Act 2006* states, in relation to ‘move on’ notices:

*When giving a person an order under subsection (1), a police officer must take into account the likely effect of the order on the person, including but not limited to the effect on the person’s access to the places where he or she usually resides, shops and works, and to **transport, health, education or other essential services.***

[Emphasis added by Committee]

- 5.16 By comparison, s 4 of the *Essential Services Act 1988* (NSW) defines “essential service” as:

#### **4. Essential services**

*(1) For the purposes of this Act, a service is an essential service if it consists of any of the following:*

- (a) the production, supply or distribution of any form of energy, power or fuel or of energy, power or fuel resources,*
- (b) the public transportation of persons or the transportation of freight (including the provision of rail infrastructure for those purposes),*

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<sup>167</sup> Councillor Douglas Thompson, Chair, Forum of Regional Councils, *Transcript of Evidence*, 26 March 2009, p2.

- (c) *the provision of fire-fighting services,*
- (d) *the provision of public health services (including hospital or medical services),*
- (e) *the provision of ambulance services,*
- (f) *the production, supply or distribution of pharmaceutical products,*
- (g) ***the provision of garbage, sanitary cleaning or sewerage services,***
- (h) *the supply or distribution of water,*
- (i) *the conduct of a welfare institution,*
- (j) *the conduct of a prison,*
- (k) *a service declared to be an essential services under subsection (2),*
- (l) *a service comprising the supply of goods or services necessary for providing any service referred to in paragraphs (a)-(k).*

*(2) The Governor may, by order published in the Gazette, declare any service to be an essential service for the purposes of this Act.*

*(2A) To avoid doubt, the regulation of bulk water supply by the Water Administration Ministerial Corporation in the exercise of its rights to the control, use and flow of water is capable of being declared to be an essential service for the purposes of this Act.*

*(3) Such an order may not be made unless the Minister has certified to the Governor that the service is essential in the public interest.*

*(4) Any such order takes effect on the day on which it is published in the Gazette.*

[Emphasis added by the Committee]

5.17 The Committee notes that “critical infrastructure and services” under the Commonwealth Government’s National Action Plan in the event of an influenza pandemic, are:<sup>168</sup>

- banking and finance;
- emergency services;
- energy (including liquid fuels);
- food supply;
- health care;
- telecommunications;
- transport;
- sanitation and garbage services; and
- a safe water supply.

### **Strategic Planning for Waste Management**

5.18 It was acknowledged that there are many aspects of the strategic management of waste that need to be undertaken at the State and Commonwealth level. The Chair of the Waste Authority noted that:

*There is a series of problem wastes where it is appropriate for the system to get together led, I think, by the Waste Authority to say, “Let’s see how we’re going to manage that”. To get back to Hon Paul Llewellyn’s question earlier about which we do first, I do not think it matters much whether it is oil, batteries or glass. It is the approach you take to one of those and the expectation in the WARR act is that it enables a mechanism that is associated with some form of up-front charge that is then used either as a deposit system, an investment system or whatever in order to manage that. But right now the reality is that most of the packaging that comes into Western Australia is imported. Our chances of managing that are very little. Maybe the federal government can have some input, but having got to that there is not likely to be a return to the time when we reuse glass bottles. It will not happen. Health concerns will stop us doing that. There are a whole series of other things for which we will not have a domestic*

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<sup>168</sup> Commonwealth Government, *National Action Plan for Human Influenza Pandemic*, April 2009, pp25-26: <http://www.dpmpc.gov.au/publications/pandemic/docs/NAP.pdf> (viewed on 5 May 2009).

*market. Therefore, I do not think it is reasonable to tell regional government to manage those sorts of things. I think, at our level, the state seems to be looking at those sorts of things collectively.*<sup>169</sup>

*The role of the Forum of Regional Councils*

- 5.19 The Committee was advised that the FORC was established over concerns regarding the lack of strategic direction and independence of the Waste Authority:

*The Waste Authority should set the strategic directions and the criteria that alternative waste management technologies should ideally meet, and provide both assistance and advice. This is one of the reasons why FORC has, in a sense, set itself up, because you had six regional councils, all operating basically on the basis of the advice of their own singular officers. While that advice is very good and there is a lot of knowledge there, that knowledge now is being pooled in FORC, and I guess the results are what you see before you today. We would want to see that separation as necessary. Along with that, we would want to ensure that, again, waste management itself is seen as an industry. It is no longer just a service; it is an industry that requires substantial forward planning and investment from local government. The very reason behind regional local government organisations is that there are very few individual local governments that have the capacity or the finances to set themselves up for alternative waste technology.*<sup>170</sup>

- 5.20 The FORC provided the following evidence as to its funding and centralised waste management expertise:

**Mr McAll:** *Currently, I believe, we each chip in on a population pro rata basis, and we spend in the order of \$60 000 to \$70 000 a year. We employ an executive officer to assist. The organisation is comprised of the CEOs and the chairmen of the regional councils. Our expenditure is modest, but we are there to find solutions to problems that are particular to regional councils, and waste management is one of those. There are also the legal issues.*

**Hon PAUL LLEWELLYN:** *So, de facto, you are trying to fill the role of providing waste management advice, strategic services and industry development that you believe should be out there. Is that why you have come into existence?*

<sup>169</sup> Mr Barry Carbon, Chair, Waste Authority of WA, *Transcript of Evidence*, 26 March 2009, p9.

<sup>170</sup> Councillor Douglas Thompson, Chair, Forum of Regional Councils, *Transcript of Evidence*, 26 March 2009, p3.

*Councillor Thompson: That is correct. From a local government point of view, I make the point that I believe that the expertise and the knowledge and experience resides collectively in the FORC CEOs and, particularly, the staff. We have that expertise. The amount of expertise we have in waste management is certainly not present in any other organisation in Western Australia, including state government departments.*<sup>171</sup>

### **Difficulties Faced by Rural and Regional Councils in Waste Management**

- 5.21 In its submission, the Pilbara Regional Council noted that, unlike metropolitan regional councils that were initially established and in most cases are still confined to dealing with waste management issues, the Pilbara Regional Council has a much broader regional purpose beyond waste management.<sup>172</sup>
- 5.22 The Committee heard evidence that the cost of transportation, treatment and recycling of waste was prohibitive for most rural local governments. As Councillor Michael Aspinall, Chair of the Municipal Waste Advisory Council, advised the Committee:

*I can only confer regarding the Shire of Gingin. The problems we have are economies of scale and the distance that we have to look at transporting the waste. Recycling is a problem because of transporting it to a reliable source. We have to pay for the cost of bringing it into Perth, or we look at recycling and using those products ourselves within our own communities. But it is the overall actual cost of recycling that makes it, in some respects, prohibitive. But most of the ratepayers in Gingin are demanding that we recycle. They want to see it happen, but when it comes to the cost of it then they start thinking and then they say, "All right, we'll bear the cost", so this is what we are looking at. We have plans to go ahead and do a lot more recycling. I think part of it is that nice, good feeling that we are doing something for the environment and for the community. The community itself does not see what happens downstream, and I think that is where we have got to start looking at producer responsibility—the end product; what we do with that end product to make it worthwhile.*<sup>173</sup>

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<sup>171</sup> Mr Stuart McAll, Chief Executive Officer, Southern Metropolitan Regional Council, and Councillor Douglas Thompson, Chair, Forum of Regional Councils, *Transcript of Evidence*, 26 March 2009, p4.

<sup>172</sup> Submission No 49 from Mr Allan Moles, Chief Executive Officer, Pilbara Regional Council, 12 February 2009, p1.

<sup>173</sup> Councillor Michael Aspinall, Chair, Municipal Waste Advisory Council, *Transcript of Evidence*, 26 March 2009, p3.

- 5.23 Mr Bruce Bowman, State President of the Waste Management Association of Australia, also noted the practical difficulty in developing a resource recovery centre in the country:

*It is more difficult in the country areas because of the tyranny of distance. In some cases in the Gascoyne region, there are 300 kilometres between towns, so it is very hard to put a materials recovery facility up there when you have to transport materials 300 kilometres and there are only 20 000 tonnes of waste in the whole area. It does not work.*<sup>174</sup>

- 5.24 The Committee notes that some local governments in the non-metropolitan area have been stockpiling material like concrete, so that when they have two years worth of concrete they can get in a crusher, crush the concrete and use it in their own road construction.<sup>175</sup> Evidence before the Committee, however, was that Main Roads WA was reluctant to use recycled products in road construction:

*One of the reasons is you cannot get acceptance for the products. One of the main offtakes is road-base product. Government authorities like Main Roads will not accept it; they consider there is too much risk associated with using that product compared with virgin material. They would rather pay slightly more for virgin materials than use a recycled product, even though you can prove it has the same specs. They have this idea in their head that there must be a little risk. I am sure that they have their own good reasons.*<sup>176</sup>

- 5.25 The Pilbara Regional Council noted in its submission that it was attempting to facilitate best practice across the eight municipal landfills in the Pilbara. However, it was noted that there were a further 25 licensed or registered landfills in the Pilbara, in addition to an unknown number of unregistered landfills servicing indigenous communities and pastoralists.<sup>177</sup> The Pilbara Regional Council would like to see changes to conditions on landfill licences to include a requirement for landfill owners to work collaboratively to promote best practice and to minimise waste going to landfill.<sup>178</sup>

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<sup>174</sup> Mr Bruce Bowman, State President, Waste Management Association of Australia, *Transcript of Evidence*, 26 March 2009, p5.

<sup>175</sup> Ms Rebecca Brown, Manager, Waste and Recycling, Western Australian Local Government Association, *Transcript of Evidence*, 26 March 2009, p4.

<sup>176</sup> Mr Rodney France, Process Consultant, Waste to Resources, GRD Minproc, *Transcript of Evidence*, 26 March 2009, pp6-7.

<sup>177</sup> Submission No 49 from Mr Allan Moles, Chief Executive Officer, Pilbara Regional Council, 12 February 2009, p1.

<sup>178</sup> *Ibid*, p2.

- 5.26 A significant problem faced by rural local governments is the transporting of metropolitan waste to rural areas so that the transporter can avoid the gate fees/landfill levy applicable to metropolitan area landfill sites:

*[T]he problem we have is that a lot of the waste is coming from Perth. Now, we cannot stop them bringing it. There is a sign that says we will only accept waste from Gingin—prove it! Once it is in there, we cannot do anything because we are a licensed landfill, so we are licensed to take waste. That comes at a cost because one of the—and we are trying to catch the gentleman who is doing it—is tyres. For every tyre, we have to pay \$4, \$5, \$10 or \$15 a tyre to get rid of them. He is obviously running a business where he is charging somebody that amount, trucking it in to Gingin, dropping the tyres off and disappearing. Therefore, we are bearing that cost. That is one of the reasons why we want to close our sites down, so that we can control them a lot better. But it comes at a cost; to build this it will cost us well in excess of \$2.5 million. Somebody the size of Gingin cannot afford that at this stage, so we have to do it bit by bit by bit, so it will take time. We do not have any control over what sort of waste goes in there. We cannot charge people for coming because if it is not manned, how will we collect the fees? People have been used to dumping their waste in there free of charge because we charge them for a pick-up service as well. You are not in the metropolitan area; in the metropolitan area the only place you can take it is to a licensed landfill site, which is run by one of the councils and they have the set fees. Some of the councils provide you with a couple of passes a year to bring in that little bit extra or they have rubbish collections. We do not provide those services other than a regular pick-up service for the ones who are in the rural residential areas, the town sites, and one or two other facilities that are on the direct route of the waste rubbish collection.<sup>179</sup>*

**Finding 17: The Committee finds that regional councils have played an important role in creating economies of scale in waste management infrastructure projects.**

**Finding 18: The Committee finds that there needs to be more collaboration and coordination between local government, the Waste Authority and the State Government in site identification and development and in the choice of technology utilised for regional resource recovery centres.**

<sup>179</sup> Councillor Michael Aspinall, Chair, Municipal Waste Advisory Council, *Transcript of Evidence*, 26 March 2009, p9.



**Finding 19:** The Committee finds that more could be done at the State Government level in terms of planning strategies for large-scale resource recovery infrastructure projects, such as assisting in site selection and in the maintenance of appropriate buffer zones between existing sites and new residential developments.

**Finding 20:** The Committee finds that there should be a closer working relationship between the Waste Authority and regional councils.

**Recommendation 9:** The Committee recommends that the *Waste Avoidance and Resource Recovery Act 2007* be amended to give the Waste Authority a greater role in strategic planning for large-scale resource recovery infrastructure projects in Western Australia.

**Recommendation 10:** The Committee recommends that the Government give consideration to the development of essential services legislation, and to incorporate waste collection and management in any definition of “*essential services*” included within such legislation.



## CHAPTER 6

### WASTE TECHNOLOGY

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- 6.1 The Committee notes the message in submissions that it is clear that Western Australia will not achieve the stated aim of zero waste by 2020 unless more effort is put into developing resource recovery facilities and phasing-out landfill.<sup>180</sup>
- 6.2 Whilst there are currently three operational waste treatment facilities in the Perth metropolitan area, a fourth one is in the final stages of construction and there are two or three other proposals within regional councils which are currently at the stage of development of tender documents or the consideration of technology options.<sup>181</sup>
- 6.3 The Waste Authority advises that apart from giving some grants to people working in the area of development of new waste technologies, it was not yet done much in this area since its establishment.<sup>182</sup>
- 6.4 The DEC stated in its submission that whilst it was supportive of the move towards resource recovery technologies, it believes that proper consideration of the full cost (financial, environmental and social) of these technologies should be given prior to local governments committing to them.<sup>183</sup> The DEC notes that:
- Many of these technologies are not proven, and may not meet the expectations of the proponent and the community.*<sup>184</sup>
- 6.5 WALGA submits that it is clear that no single alternative waste treatment process presents a solution to all waste problems, and that each local government has its own environmental, social and economic conditions and different criteria and parameters for waste processing.<sup>185</sup> What is therefore required in Western Australia is research into a range of suitable technology, and how it can be varied and adapted to differing conditions. There also needs to be certainty of end markets for the products of alternative waste technology.<sup>186</sup>

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<sup>180</sup> Submission No 43 from Casey Cahill, Group Manager Corporate Affairs, GRD Minproc Limited, 12 February 2009, p13.

<sup>181</sup> Ms Jan Grimoldby, Deputy Chair, Waste Authority of WA, *Transcript of Evidence*, 26 March 2009, p7.

<sup>182</sup> Letter from Mr Barry Carbon, Chair, Waste Authority of WA, 9 April 2009, p2.

<sup>183</sup> Submission No 53 from Mr Keiran McNamara, Director General, Department of Environment and Conservation, 13 February 2009, p3.

<sup>184</sup> Ibid.

<sup>185</sup> Submission No 59 from Western Australian Local Government Association, 13 February 2009, p40.

<sup>186</sup> Ibid, p42.

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- 6.6 According to WALGA, social concern regarding thermal technologies coupled with the poor buffering capacity of Western Australia's soils, has driven alternative waste technology in this State towards biological conversion technologies.<sup>187</sup> WALGA stated that:

*Furthermore, the organic component of [municipal solid waste] in Western Australia is approximately 70 percent, and biological [alternative waste technology] can convert this organic waste into a mineral rich soil enhancer which assists to replenish nutrients into the nutrient, buffer poor soil in Western Australia. Applying recycled organics to land increases the water holding capacity of the soil, assisting in carbon sequestration and reduces the need for fertiliser and pesticide application. The greatest concern regarding WA's preferred [alternative waste technology] is limited availability of end product markets. With the possibility of five [alternative waste technology] facilities in operation within the next five years, it is vital that end product markets are established and secure.<sup>188</sup>*

### **Biological Conversion Technologies**

- 6.7 Types of biological conversion technologies include aerobic decomposition, anaerobic digestion and vermicomposting.<sup>189</sup>
- 6.8 Vermicomposting, whereby worms are used to consume food waste, biosolids, animal wastes and organic material to produce a high quality soil conditioner, is still a relatively new waste management technology.<sup>190</sup>

#### *Lancashire Waste Project*

- 6.9 At a hearing on 26 March 2009, Western Australian company GRD Minproc provided an overview of the construction of new waste treatment facilities that it had designed and constructed at Lancashire in the United Kingdom. The site actually contains two facilities within the Lancashire County Council. The first facility will start its commissioning in February next year and then there will be a 12-month ramp up to a full service commencement at February 2011 for the first facility, and the second facility will follow six months later.<sup>191</sup>

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<sup>187</sup> Ibid, p46.

<sup>188</sup> Ibid.

<sup>189</sup> Submission No 59 from Western Australian Local Government Association, 13 February 2009, p41.

<sup>190</sup> Ibid, p41.

<sup>191</sup> Mr Peter Kelsall, General Manager, Waste to Resources, GRD Minproc, *Transcript of Evidence*, 26 March 2009, p9.

- 6.10 The two plants will receive 750 000 tonnes per annum and process 600 000 tonnes per annum.<sup>192</sup> The facilities will process enough waste to fill Subiaco Oval annually, and will process 15 million tonnes of municipal solid waste over the 25 year term of the contract.<sup>193</sup>
- 6.11 The plants will produce 44 gigawatt hours of energy per annum from anaerobic digestion of the organic product. The collected organic waste will go into percolators and then into an anaerobic digester to produce methane, which will then be cleaned to produce power. For the Thornton site, about a third of the power required to operate the facility will be generated by this process.<sup>194</sup>
- 6.12 There will also be a significant amount of recovery of recyclable materials such as steel, paper, plastic and cardboard.<sup>195</sup>
- 6.13 A notable aspect of the Lancashire facilities are the steps taken to reduce odours escaping from the premises:

*Mr Kelsall: ... everything happens inside the facilities at Lancashire. The trucks drive in; they do not even manoeuvre outside. They come into a receival area and do their manoeuvring inside. Everything is done inside. All those facilities are under negative air pressure. First of all, there is a double air block, one set of doors open and the trucks goes in; it manoeuvres and then reverses to dispose of its waste and the second door opens. That is one protection. The other protection we put in is the facilities being are under negative air pressure. When the doors shut, what is inside the building does not want to run out; it sucks in fresh air. All that air is collected through a system. If you have been to Canning Vale and seen the size of its biofilter—I refer you to page 6—between the two long buildings you can see there is a concrete structure in between the buildings that goes the full length. That will be the biofilter for Lancashire, and is 220 metres long.*

*Hon PAUL LLEWELLYN: The overwhelming sense we had, looking at other biofilters in other places was that SMRC was probably a bit small. What is the throughput?*

*Mr Kelsall: The throughput in that plant is 600 000 tonnes for the network, so 300 000 tonnes per facility per annum.*

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<sup>192</sup> Ibid, p2.

<sup>193</sup> GRD Minproc, *Lancashire Waste PFI Project*, document tabled at hearing on 26 March 2009, p5.

<sup>194</sup> Mr Peter Kelsall, General Manager, Waste to Resources, GRD Minproc, *Transcript of Evidence*, 26 March 2009, p9.

<sup>195</sup> Ibid, p2.

**Mr France:** *Of that, only 170 000 is MSW and 55 000 is green waste.*

**Mr Kelsall:** *With seasonal variations 62 500 for green waste.*

**Mr France:** *The rest is recyclables.*

...

**The CHAIR:** *Because of the negative air pressure, there are no odour problems.*

**Mr Kelsall:** *That is the design. There will not be odour problems due to the negative air pressure. We have a massive air treatment process. What is not on there yet is, rather than having an open biofilter we have enclosed it and the air that comes off the biofilter will be accelerated rather than just come out under its own pressure, so that it will lift clear of the site and we will get a better disbursement of the air. We do not think we will have an odour issue, but it is another safety factor.*

**Hon PAUL LLEWELLYN:** *Will you put in a stack and pump it up?*

**Mr Kelsall:** *Yes. The stacks sit about the same height as the eaves of the building, so we had to achieve an exit speed of about 15 metres per second to get the right height on the air.*

**Hon PAUL LLEWELLYN:** *Is that done thermally?*

**Mr Kelsall:** *No, it has induced fans; it is mechanically forced.*

**The CHAIR:** *Would that be an option for Canning Vale?*

**Mr Kelsall:** *If there is still an odour profile issue there, yes it would. We did all the modelling. There is modelling for air dispersion based on prevailing winds. All those models were done as part of the design for this scheme.*

**The CHAIR:** *Would that be an expensive option for them down there?*

**Mr Kelsall:** *For this project the biofilter is open compared to the biofilters with covers, stacks and fans added about £4.5 million to the total project. You are talking about biofilters of 220 metres long—a lot bigger area than there would be at Canning Vale.*

**The CHAIR:** *In the scheme of things, given it has a valuation of \$110 million or \$115 million, that would not be an expensive option if it were feasible.*

**Mr Kelsall:** *If there is still a problem.*

**The CHAIR:** *Yes.*

**Mr France:** *\$10 million or \$15 million. It would not cost them that much.*

**Mr Kelsall:** *It would be significantly less because it has smaller biofilters.*

**Mr France:** *One of the problems is that it would have a fairly high operating cost because of the power to blow the air through. We recover energy through our anaerobic digesters, so we can pay for a lot of our power—not all of it mind you—whereas Canning Vale does not have that option.<sup>196</sup>*

### Thermal Technology

- 6.14 Three types of thermal technologies to heat waste in order to produce a stable residue for disposal are incineration, pyrolysis and gasification.<sup>197</sup>
- 6.15 The Waste Management Association of Australia argued that there needs to be more research into technology for the processing of combustible waste that continues to end up in landfill:

*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.*

<sup>196</sup> Mr Rodney France, Process Consultant, Waste to Resources, and Mr Peter Kelsall, General Manager, Waste to Resources, GRD Minproc, *Transcript of Evidence*, 26 March 2009, pp7-9.

<sup>197</sup> Submission No 59 from Western Australian Local Government Association, 13 February 2009, p41.

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*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.<sup>198</sup>*

- 6.16 It was the evidence from GRD Minproc that any waste treatment program that has a target of zero landfill waste will need to have an element of thermal waste treatment integrated into the program:

*Many different technologies are available for the treatment of municipal waste, but not one single technology would meet all the requirements. An integrated flow sheet to suit the feed stream is required. Furthermore, if the target of zero waste by 2020 is a real objective, there must be an understanding that one part of the integrated flow sheet needs to include thermal treatment.*

*The UR-3R process that GRD Minproc has developed can divert up to 70 per cent of waste from landfill. However, there is a residual fraction that the process cannot treat. The residual fraction is common to all alternative waste treatment facilities and includes non-organic materials that cannot be recycled by current technologies. These items include old shoes, textiles, small packaging materials, et cetera. These residuals have relatively high calorific value and are effectively used to generate power throughout the European Union. Power generation is conducted in various modern processes that have overcome the emission problems of yesteryear. As for other recyclable components of the waste stream, the embodied energy should be considered as a resource to be recovered and not lost to landfill. The 2020 document presents thermal treatment as one of the options. However, like the issue of waste water recycling I suspect that it is a step change that Western Australians would be reluctant to embrace despite the existence of safe, clean technologies for this purpose. However, if the 2020 vision is to be achieved, it must be included in the blueprint for waste treatment and the community concerns embraced as part of the process.<sup>199</sup>*

- 6.17 GRD Minproc noted that the European Union had embraced energy recovery from waste as a legitimate form of waste recovery. There have been recent advances in technology away from mass burn incineration, where all waste is burned, to targeted burning of the non-recyclable residue that remains after resource recovery

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<sup>198</sup> Submission No 38 from Mr Bruce Bowman, State President, Waste Management Association of Australia, 6 February 2009, p5.

<sup>199</sup> Mr Peter Kelsall, General Manager, Waste to Resources, GRD Minproc, *Transcript of Evidence*, 26 March 2009, p3.



processes.<sup>200</sup> This fraction of the waste stream (about 30%) is cleaner than conventional mass burn feed material having had the majority of hazardous and pollution causing materials removed in the resource recovery process. Such waste currently consists of non-recyclable material such as shoes, textiles and old toys.<sup>201</sup>

6.18 GRD Minproc noted that:

*State of the art Energy from Waste facilities are becoming relatively common in the EU and are typically high efficiency circulating fluidised bed burners or gasification facilities. The advent of circulating fluidised bed burners has further reduced the emissions issues that plagued the old 'mass burn' facilities by advances in burner design and flue gas scrubbing. Gasifiers convert the residue into a synthetic natural gas (or Syngas) that is then used in gas fired generators to produce renewable energy. The generators only release gases with the same composition as any other gas fired generator.*<sup>202</sup>

6.19 The Committee noted the continued wide use of thermal waste treatment in the United Kingdom:

**Mr France:** *We looked at a couple of projects in the UK, and they have very much gone down the route of thermal treatment to the point of burning the organics as well. The up-front resource recovery took out the metals and the more easily recoverable materials, such as the glass and so forth, and then it took out the organics and dried them with a biological drying system, and then blended that to give a constant feed to a small scale thermal facility—a fluid ice-bed, a burner or a gas fire.*

**Hon WENDY DUNCAN:** *Your submission indicated there is, I guess, almost a mental block about thermal processes in that people immediately think of carbon going into the atmosphere. Obviously, we need an education process.*

**Mr Kelsall:** *A very big education process is needed. What we found in the UK is the terminology and use of the word "incineration" is something that refers to the old plants that used to receive all material for bulk incineration to burn the waste and to produce power. In the modern process, they talk about energy from waste;*

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<sup>200</sup> Submission No 43 from Casey Cahill, Group Manager Corporate Affairs, GRD Minproc Limited, 12 February 2009, p12.

<sup>201</sup> Ibid.

<sup>202</sup> Ibid.

*they break into fractions to get the best recovery that they can. Some of the projects that Rod just mentioned are single facilities receiving 600 000 tonnes of waste.*<sup>203</sup>

- 6.20 It was submitted by GRD Minproc that ideally Perth would have three major waste treatment facilities operating with one of those providing thermal treatment technology:

*If you are looking at Perth as absolutely starting afresh for the whole city, you would probably say that Perth needs three major facilities, and at one of those facilities you would put some sort of thermal process to treat the residuals that come from the other two. That would provide Perth with the most economic solution, and it would provide Perth with a solution that would achieve 95 per cent—potentially more—diversion from landfill for its municipal waste.*<sup>204</sup>

- 6.21 The Committee heard evidence regarding a proposed poultry manure power station at Neerabup.<sup>205</sup> It was noted by the DEC that such technology was likely to attract community concern:

*Hon PAUL LLEWELLYN: ... do you have a view about the use of combustion technologies—waste to energy combustion technologies—being used in Western Australia in terms of their environmental impacts and so on?*

*Mr Atkins: Obviously, any of those technologies need to have the right sort of pollution abatement equipment on them, and I have no reason to believe that those sorts of technologies cannot operate safely in Western Australia, if there is appropriate pollution abatement equipment that can be fitted. One of the fundamental impediments to some of those technologies is community attitude, particularly if you are talking about thermal combustion. However, those technologies, as I understand it, work well in other parts of the world.*<sup>206</sup>

<sup>203</sup> Mr Rodney France, Process Consultant, Waste to Resources, and Mr Peter Kelsall, General Manager, Waste to Resources, GRD Minproc, *Transcript of Evidence*, 26 March 2009, p5.

<sup>204</sup> Mr Peter Kelsall, General Manager, Waste to Resources, GRD Minproc, *Transcript of Evidence*, 26 March 2009, p11.

<sup>205</sup> Mr Robert Atkins, Acting Deputy Director General, Department of Environment and Conservation, *Transcript of Evidence*, 26 March 2009, p6.

<sup>206</sup> *Ibid*, p7.

### Establishing a Centre for Waste Management Research

- 6.22 The possibility of establishing a centre for waste management research in Western Australia where technical knowledge could be centralised was also canvassed during the Committee's inquiry. WALGA noted that greater knowledge of the options and implications of the different types of alternative waste technologies was needed. WALGA stated:

*Ms Brown: ... Regarding the idea for a centre of excellence for waste management, WA, as you have said, is doing exceptionally well with alternative waste treatment. In the coming years, pretty much every council in the metropolitan area will have some form of alternative waste treatment and will be diverting that material from landfill. However, we still do not know a lot about the technologies in some senses. It is not really out there in the public arena. So the idea of a centre of excellence is somewhere to focus research. I believe that South Australia has a cooperative research centre, and that gets funding from state government and industry, and research occurs on identified key issues. It is somewhere to house the knowledge of the waste sector.*

...

*Councillor Aspinall: I think the Waste Authority could in some ways look at part funding, leading the way and showing, but I think it has got to be set in a university situation. I think you need the academic support that they have. It may be that the Waste Authority directs the areas in which research should be done, but I believe it should come under the auspices of one of the universities or colleges.<sup>207</sup>*

- 6.23 The Committee notes that the issue of a centre of excellence in waste management may be addressed by the development of multi-disciplinary staff within a well resourced Waste Authority (as discussed in Chapter 4).

**Finding 21: The Committee finds that waste treatment technologies are constantly changing and evolving, and that there is no one technology that is perfectly suited to the treatment of all types of waste.**

<sup>207</sup> Ms Rebecca Brown, Manager, Waste and Recycling, Western Australian Local Government Association, and Councillor Michael Aspinall, Chair, Municipal Waste Advisory Council, *Transcript of Evidence*, 26 March 2009, p8.

**Finding 22: The Committee finds that the development of new waste technology in Western Australia needs to have regard to small-scale infrastructure in rural and regional areas.**

**Recommendation 11: The Committee recommends that the focus of waste management efforts be on the separating and recycling of waste before the application of biological, chemical or thermal treatment technologies.**

## CHAPTER 7

### COST IMPLICATIONS OF WASTE MANAGEMENT AND THE LANDFILL LEVY

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#### The Cost Implications of Alternative Waste Technology

- 7.1 The Committee notes that advanced waste technology as employed at the new Neerabup facility is extremely expensive. As the DEC advised:

*The types of technologies and the scale of facilities, like the one that is being built at Neerabup at the moment and the SMRC facility, are several tens of millions of dollars. It is hard to imagine that revenue from a landfill levy would ever be sufficient to fund those sorts of things, but clearly the landfill levy is there to assist and support planning facilities and providing assistance to providers of services for their strategic planning.*<sup>208</sup>

- 7.2 It was put to the Committee that it made more economic sense to put all waste into landfill rather than invest in alternate waste technology. As Councillor Doug Thompson noted with respect to the SMRC's alternative waste facility:

*I think it would cost us about \$65 to \$70 to simply take our stuff back to landfill, whereas currently it costs us about \$130 to process it. That enables us to keep 70 per cent of our—sorry, I am talking here as the SMRC for the moment, but the same thing applies to all of the other regional councils as well when they have an alternative waste technology. At current prices, it would be easier for us to just stick it into landfill. If I was making a purely business decision and not thinking about the environmental and the community benefits of what we do, I would say stick it in a hole until such time as the prices increase enough to make it viable for me to go back to [alternative waste technology].*<sup>209</sup>

- 7.3 The SMRC facility partly funds its operations by way of gate fees and sales of recyclables.<sup>210</sup> The fall in commodity prices has had a substantial impact on money

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<sup>208</sup> Mr Robert Atkins, Acting Deputy Director General, Department of Environment and Conservation, *Transcript of Evidence*, 26 March 2009, p6.

<sup>209</sup> Councillor Douglas Thompson, Chair, Forum of Regional Councils, *Transcript of Evidence*, 26 March 2009, p8.

<sup>210</sup> *Ibid.*

raised from recyclable materials - down from \$8 million to \$3.5 million.<sup>211</sup> It was suggested that the landfill levy funds could be used to assist local governments meet funding shortfalls for alternative waste technology facilities until commodity prices rose again.<sup>212</sup> The fall in commodity prices and its impact on the SMRC's funding of its RRRC has proven to be an example of the need to put in place measures to guarantee certainty of long-term funding for alternative waste technology facilities:

*From FORC's point of view the experience at SMRC about what is required for a long-term investment is a salutary lesson to the other regional councils. Considering the amount of money regional councils will have to spend, they need to have some degree of certainty. The only way to get that certainty is by increasing the landfill levy. That will give the underpinning capacity to support alternative waste technology. FORC is looking for both legislative and business environment certainty.*<sup>213</sup>

7.4 Mr Bruce Bowman, State President of the Waste Management Association, stated:

*The problem that we have is the levy is not high enough to reflect the true cost of disposal. The levy has been set at an arbitrary figure that, before the AWT plants were around, was believed would be a deterrent to take waste to landfill. The cost of disposal of waste to industry, and even the private sector for municipal waste, is quite small when you look at the whole-of-life cost of the waste that we create. If we addressed the whole-of-life cost of waste at its disposal end, you would find that industry and the public would be more careful about what they dispose of.*<sup>214</sup>

#### **Gate Fees and the Landfill levy**

7.5 The Committee noted the distinction between administrative gate fees imposed by local governments at landfill sites and the landfill levy:

***Ms Brown:** ... the gate fee will be how much the landfill charges to whoever it is to dispose of the waste there, and that gate fee will include the levy. However, the gate fee will primarily be geared towards the running and operations of the landfill and also its post-*

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<sup>211</sup> Mr Stuart McAll, Chief Executive Officer, Southern Metropolitan Regional Council, *Transcript of Evidence*, 26 March 2009, p9.

<sup>212</sup> Ibid.

<sup>213</sup> Councillor Douglas Thompson, Chair, Forum of Regional Councils, *Transcript of Evidence*, 26 March 2009, p9.

<sup>214</sup> Mr Bruce Bowman, State President, Waste Management Association of Australia, *Transcript of Evidence*, 26 March 2009, p2.

*closure management. Therefore, at the moment the levy is included in that gate fee, but most of the gate fee is operational.*

**Hon PAUL LLEWELLYN:** *Can you give us a sense of how much that is across metropolitan regions and local councils?*

**Ms Brown:** *Sure, it varies a bit. There would be some local governments who would be charging around \$100 a tonne as a gate fee. That would be for mixed waste; so, if someone turns up with a trailer full of waste, approximately \$100 a tonne, or from a commercial business, \$100 a tonne. Some other local governments have a slightly lower gate fee, probably down to about \$70, and that will depend on their operations. They may choose to charge less for ratepayers than for people coming from outside the area or charge more for commercial businesses. Some of the local governments may say that if you are bringing them recyclable material, they will not charge any gate fee, so you can come in and they will separate it and they will recycle it.<sup>215</sup>*

### **Increasing the Landfill Levy**

- 7.6 The Committee queried whether the amount of the landfill levy was set high enough. The DEC noted:

*... that is a government policy issue for the minister to answer. I would make the observation, though, that it is low relative to other states. That, to me, is an indication of its level and its value.<sup>216</sup>*

- 7.7 The Committee was interested in the evidence of GRD Minproc regarding the steps taken in the United Kingdom and other European Union countries to impose a landfill levy and associated penalty provisions to assist in the cost of developing new waste treatment technologies:

**The CHAIR:** *I will take up what you said in your conclusion. What would you describe as meaningful legislative constraints? Would it be just a rise in the levy?*

**Mr Kelsall:** *The UK has managed it by increasing the levy to a point that if material is put to landfill without any sort of treatment, a taxation system applies.*

<sup>215</sup> Ms Rebecca Brown, Manager, Waste and Recycling, Western Australian Local Government Association, *Transcript of Evidence*, 26 March 2009, pp8-9.

<sup>216</sup> Mr Robert Atkins, Acting Deputy Director General, Department of Environment and Conservation, *Transcript of Evidence*, 26 March 2009, p6.

**The CHAIR:** *In your diagram reference is made to “levy”. What would the levy be in the UK?*

**Mr Kelsall:** *The levy in the UK is about £45 per tonne.*

**The CHAIR:** *About \$90.*

**Mr Kelsall:** *Yes.*

**The CHAIR:** *There is a £148 penalty.*

**Mr Kelsall:** *That is the taxation system that is imposed if waste is sent to landfill without any sort of treatment having occurred.*

**Hon KATE DOUST:** *Is that on a sliding scale?*

**Mr Kelsall:** *It is going up over time. It is on a sliding scale that is increasing each year. It was introduced at a lower rate than that.*

**The CHAIR:** *What sort of reaction to the penalty was there in the UK? Was there a huge amount of resistance to it?*

**Mr Kelsall:** *When I got involved with the project all the announcements about the penalty system had been made and the EU targets had been implemented. The political discussion had already been had.*

**Hon PAUL LLEWELLYN:** *Is that driven as an EU directive?*

**Mr Kelsall:** *Yes, it is an EU directive.*

**The CHAIR:** *Somebody put forward a submission about the benefit of uniform legislation. Obviously the UK, which is part of the EU, would, in this instance, operate under a uniform system. Do you see any advantage of a uniform system in Australia?*

**Mr Kelsall:** *Absolutely. The UK has taken on board the EU directive. It has put its own model around how it will apply it. This scheme is being developed. It means that councils in all areas have to embrace it. If it is not done at a full state or national level there are opportunities for the system to be avoided or alternative disposal systems to be used. Landfill is very cheap in Australia; therefore, we*



*do not give it the same regard as they do in the UK. We need to ensure that it is uniform legislation.*<sup>217</sup>

- 7.8 WALGA provided the following evidence regarding the need to increase the amount of the landfill levy:

*We do not have a specific number in mind. Our policy position is that there are several reasons why you set a levy. The first is to raise revenue for strategic waste activities. Part of the reason you set a levy is to fund programs and to fund things to happen. One example is the household hazardous waste program, which WALGA currently administers, which provides collection days so that people can take their paint and pesticides to a convenient location and drop them off. That is funded through the landfill levy. The other reason that you set a levy is to change behaviour by putting a price signal in place. I am not an economist, but there are certain points that you can set the levy at that will change behaviour. That will be different for the putrescible levy and for the inert levy. The other reason that you set a levy is to include the externalities that are not currently covered. The carbon pollution reduction scheme at a federal level may start to incorporate some of those externalities and put an additional price on landfill. As I say, there are lots of reasons why you set a levy and how it should be calculated.*<sup>218</sup>

- 7.9 As noted in Chapter 5, non-metropolitan landfill sites are sometimes the destination of waste created in the metropolitan area. It was suggested that the lack of a landfill levy applying outside of the metropolitan area needs to be borne in mind when increasing the levy:

*We have to be careful not to impose too high a levy on waste in the metropolitan area and do what councillor Aspinall was talking about before; that is, push waste out of the metropolitan area into the country areas. Once you get past Bunbury, it is free tipping; once you get past Mindarie, it is free tipping; right up through Geraldton, Carnarvon, the Gascoyne region—it is all free tipping; down south in Wagin, Narrogin and all those sort of places—it is free tipping. So if you put too high a price on a levy in Perth, it will be quite*

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<sup>217</sup> Mr Peter Kelsall, General Manager, Waste to Resources, GRD Minproc, *Transcript of Evidence*, 26 March 2009, p4.

<sup>218</sup> Ms Rebecca Brown, Manager, Waste and Recycling, Western Australian Local Government Association, *Transcript of Evidence*, 26 March 2009, p7.

*conceivable for waste to be put on road trains and transported further out.*<sup>219</sup>

- 7.10 The Waste Management Association of Australia was also not prepared to offer a figure for any increase in the landfill levy, but urged that an investigation be conducted 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.*<sup>220</sup>

- 7.11 It was also suggested by the Waste Management Association of Australia that the current classification levels for the landfill levy need to be reviewed. It was noted that benign residual waste generated by the resource recovery industry is subject to the highest landfill levy, despite its benign state and limited potential for methane production within a landfill.<sup>221</sup>

**Finding 23: The Committee finds that although an increase in the landfill levy may be appropriate, it is concerned that any increase in the levy may be absorbed as an additional revenue stream for the Department of Environment and Conservation's activities in the area of waste management.**

**Recommendation 12: The Committee recommends that the Government implement a comprehensive review of levies, rates and charges associated with waste management, with the aim of getting a uniform, coordinated and cost reflective fee structure that can be reviewed by an independent body, such as the Economic Regulation Authority.**

<sup>219</sup> Mr Bruce Bowman, State President, Waste Management Association of Australia, *Transcript of Evidence*, 26 March 2009, p3.

<sup>220</sup> Submission No 38 from Mr Bruce Bowman, State President, Waste Management Association of Australia, 6 February 2009, pp5-6.

<sup>221</sup> *Ibid*, p6.

## **CHAPTER 8**

### **THE COMMITTEE'S TRAVEL AND SITE VISITS**

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- 8.1 Over the course of the inquiry the Committee made a number of site visits to relevant waste management establishments, both within Western Australia and interstate (Queensland and New South Wales). The Committee was particularly interested in the different resource recovery technologies from an odour management perspective.
- 8.2 Many local government authorities in Australia and overseas have turned to centralised biological facilities for converting the organic waste into useable products, in an effort to achieve the desired targets for diverting waste away from landfill, and in order to maximise economies of scale.
- 8.3 As noted in Chapter 1, the two preferred biological methods for converting the organic waste are classified as either aerobic composting or anaerobic digestion. Aerobic composting is waste that is processed with the use of oxygen. It can be an open process where material is left out in the open to decompose or it can be enclosed whereby the material is composted in controlled atmospheric and moisture conditions through the use of drums, boxes, silos or vessels to hold, rotate and control the waste product.
- 8.4 Anaerobic digestion is the controlled breakdown of organic matter in the absence of oxygen. The removal of oxygen encourages bacteria, which speeds up the rate of breakdown. The end product is a biogas which can be burnt to produce heat and electricity.

#### **South Metropolitan Regional Council Resource Recovery Centre, Canning Vale, Western Australia**

- 8.5 The Committee visited the SMRC RRRC at Canning Vale on 5 December 2007.
- 8.6 The RRRC in Canning Vale uses a Bedminster aerobic in-vessel digestion system to convert the mixed waste into compost. The same Bedminster technology is also used in Cairns, Queensland, and Port Stephens, New South Wales.

#### **Cairns Regional Council, Queensland**

- 8.7 The Committee received a presentation from the Cairns Regional Council on 19 January 2009. Mr Bruce Gardiner, Cairns Regional Council, General Manager Water and Waste, presented an overview on the history of the Bedminster plant situated in Cairns, the financial arrangements, how the operation commenced, and the overall plant breakdown, disputes and resolutions.

- 8.8 The Committee then received a further presentation from Mr Mike Ritchie, SITA Environmental Solutions, National General Manager, Marketing and Communications, who provided an overview of the various trends in waste, and statistics on how much landfill each State uses, and the impact of landfill on the environment.

### **Bedminster Composting Plant, Cairns**

- 8.9 The Cairns-based Bedminster composting plant, operated by SITA Environmental Solutions, is an alternative waste technology that converts municipal, commercial and industrial waste into green compost and recovers materials for re-use, reducing the volume of waste sent to landfill by around 80%. Compost produced at the facility is distributed to cane farms within the region to improve crop yield.<sup>222</sup>
- 8.10 The plant commenced operation in 2002. It initially had a troubled history with problems with the digesters and with odour from the facility. The entire plant was closed from December 2004 to July 2006 for repair and modifications.
- 8.11 On 19 January 2009, Mr Mike Richie, SITA Environmental Solutions, National General Manager, Marketing and Communications, and Mr Haydn Slattery, Plant Manager, accompanied the Committee on a tour of the Cairns Bedminster Composting Plant.

### **SITA Environmental Solutions Waste Facility, Port Stephens, New South Wales**

- 8.12 Port Stephens was one of the first councils in Australia to introduce a large scale alternative waste technology plant in 1999. The Council uses a Bedminster MSW composting facility as part of its fully integrated recycling, re-use and waste reduction activities. SITA Environmental Solutions took over the operation of the facility in March 2007.
- 8.13 From the SITA website;

*Utilising SITA's Composting Facility at Raymond Terrace, the organic component is separated and processed into recycled quality soil conditioners for use in landscaping, land rehabilitation, turf growing and broadacre agriculture.*

*This innovative approach has seen Port Stephens Council reduce the amount of their domestic and commercial material streams destined for landfill disposal by approximately 65%.*

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<sup>222</sup> <http://www.sita.com.au/our-services/post-collections/sita-cairns-bedminster-composting-plant.aspx> (viewed on 23/12/2008).

*The process also enables the recovery of other valuable resources such as steel which is sold as a recycled product back to industry, further improving the environment.*

*Any residual from the process is inert and when placed into a landfill does not create methane and leachate issues. If the organics were not removed, both of these problems would be generated for many years, even after the landfill is closed.*

*From a climate change perspective as the process is aerobic, the generation of greenhouse gases (GHG) is significantly reduced. Although carbon dioxide is a natural by-product of the aerobic composting process, it forms part of the natural carbon cycle. However, it does not produce methane, a far more serious GHG (25 times more serious!).*

- 8.14 The facility appears to have been the most successful of the three Bedminster Composting facilities operating in Australia.
- 8.15 On 21 January 2009 Mr Mike Ritchie, National General Manager, Marketing and Communications, SITA Environmental Solutions, and Mr Andrew Kosciuszko, Post Collection Manager, guided the Committee on a tour of the Port Stephens facility.

#### **Port Stephens Council, New South Wales**

- 8.16 On 21 January 2009 the Committee received a briefing on the Port Stephens waste management facilities and an overview of the various landfill sites and the Bedminster facilities located within New South Wales.

#### **McArthur Resource Recovery Park, New South Wales**

- 8.17 On a site visit to Penrith City Council during the Environment and Public Works Committees' 2008 annual conference, held in Sydney in July 2008, the Committee became aware that the Penrith City Council was exploring various alternative waste technologies.
- 8.18 The Committee conducted further research and discovered that WSM Environmental Solutions operates a fully integrated municipal mixed waste (Arrowbio) facility in Macarthur Resource Recovery Park in South Western Sydney.
- 8.19 The Arrowbio facility incorporates:
- a Tunnel Composting facility for 4 x Councils Green Waste stream (31,000 tonnes per annum);

- a materials recycling facility (MRF) processing 31,000 tonnes per annum of fully co-mingled recyclables; and
  - the Alternate Waste Technology WSN/Arrowbio Anaerobic digestion facility which processes 90,000 tonnes per annum of household waste.
- 8.20 The Anaerobic digestion process then captures 100 per cent of methane from the organic fraction within the waste and uses this gas to power motors which also generates 'Green Electricity'. The methane by-product is pumped to two x 1.4 megawatt motors to generate electricity. The energy from the methane powers the facility plus produces an additional amount of electricity equivalent to what is required to power 1,700 homes.
- 8.21 On 22 January 2009, Mr Richard Adams, Business Development Manager, WSN Environmental Solutions, provided an overview of the significance of greenhouse gas and climate change and the various different technologies available to treat municipal solid waste. Mr Adams also conducted a tour and provided an update on the alternative waste technologies used at McArthur Resource Recovery Park.

**Eastern Creek landfill site, New South Wales**

- 8.22 The Eastern Creek site includes:
- an alternative waste technology facility;
  - a resource recovery centre;
  - a small vehicles drop-off area;
  - garden organics processing;
  - green energy production;
  - bioreactor landfill; and
  - major land rehabilitation.
- 8.23 The Eastern Creek Resource Recovery Centre uses a combination of aerobic and anaerobic treatments to process the waste. Material is first separated in a trommel (giant cylinder washing machine) to separate organic waste from the recyclables. The recyclables are further separated by machines. The organic waste is then washed for two days while bacteria break down the organics in the presence of oxygen (aerobic action).
- 8.24 The water that is used in the aerobic stage is transferred to a tank that contains anaerobic bacteria. This bacteria breaks down the organic material in the water and

produces methane. The methane is used to electrically power the recycling centre. The water is then used again in aerobic stage of recycling.

- 8.25 The finished organic waste is composted for four weeks in a hall, before being transferred outside to be composted for another eight weeks. The compost is then further refined to remove any plastic or glass fragments.<sup>223</sup>
- 8.26 On 22 January 2009, Mr Richard Adams, Business Development Manager, WSN Environmental Solutions, and Mr Paul Newcombe guided the Committee through the landfill site at Eastern Creek.

### **Elizabeth Drive Facility, New South Wales**

- 8.27 On 22 January 2009, Mr Andrew Koscuizko, Post Collection Manager, SITA Environmental Solutions, guided the Committee through the Elizabeth Drive Facility which was still in the development stage. The facility was officially opened on 25 March 2009. A media statement by SITA Environmental Solutions to mark the official opening states:

*A new \$50 million advanced waste treatment plant will establish Western Sydney residents as the most effective recyclers in the State.*

*SITA Environmental Solutions' Advanced Waste Treatment (SAWT) plant at Elizabeth Drive, Kemps Creek, was officially opened today by the Minister for Climate Change and the Environment and Deputy Premier, Carmel Tebbutt.*

*The new plant will have a capacity to process 134,000 tonnes of waste annually. Of the waste stream entering the plant up to 78 percent will be diverted from landfill, dramatically changing the carbon footprint of Penrith and Liverpool residents, as materials are recovered and recycled for beneficial reuse.*

*The greenhouse emissions avoided by recycling organic and other waste at the new plant - rather than letting it decompose in a landfill - is 75,000 tonnes, the equivalent of taking 19,000 cars off the road each year.<sup>224</sup>*

<sup>223</sup> [http://www.wsn.com.au/dir138/wsn.nsf/AttachmentsByTitle/UR-3R/\\$FILE/WSN\\_UR-3R\\_Brochure.pdf](http://www.wsn.com.au/dir138/wsn.nsf/AttachmentsByTitle/UR-3R/$FILE/WSN_UR-3R_Brochure.pdf) (viewed on 23/12/2008).

<sup>224</sup> [http://www.sita.com.au/media/28119/090325%20-%20sawt%20new%20\\$50m%20plant%20means%20western%20sydney%20residents%20now%20among%20top%20recyclers%20in%20the%20state.pdf](http://www.sita.com.au/media/28119/090325%20-%20sawt%20new%20$50m%20plant%20means%20western%20sydney%20residents%20now%20among%20top%20recyclers%20in%20the%20state.pdf) (viewed on 23 April 2009).

**Mindarie Regional Council Waste Treatment Plant, Neerabup, Western Australia**

8.28 On 27 March 2009, representatives of the Committee attended the official opening of the \$80 million household waste treatment plant in Neerabup designed to produce about 40,000 tonnes of compost annually and divert some 70,000 tonnes of waste from landfill. The plant is owned and operated by BioVision 2020 Pty Ltd under a 20-year contract with the Mindarie Regional Council. A media statement issued by SITA Environmental Solutions states:

*The plant employs an aerobic digestion process to convert household waste to compost, with the solid inorganic residue sent to landfill.*

*The new plant will play a major role in reducing the volume of waste sent to the Tamala Park landfill by up to 20 per cent each year, with additional environmental and economic benefits.*

*The compost generated will help enrich Perth's nutrient-deficient soils, reduce the need for artificial fertilisers, and slow and lessen the leaching of chemicals into the groundwater.*

*The plant's output will also contribute significantly to environmental sustainability, by lessening the volume of greenhouse gas created within the landfill, thereby lessening the impact on global warming.<sup>225</sup>*

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<sup>225</sup> <http://www.sita.com.au/media/28223/090327%20-%20mindarie%20-%20new%20resource%20recovery%20facility%20wastes%20less%20waste.pdf> (viewed on 23 April 2009).



## CHAPTER 9

### OTHER ISSUES RAISED IN SUBMISSIONS

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#### COMMERCIAL, INDUSTRIAL AND DEMOLITION WASTE

- 9.1 Unlike municipal waste, no single body has responsibility for the collection and treatment of commercial, industrial and demolition waste.
- 9.2 The Committee was concerned that over 50% of the State's waste is simply being put into landfill as there is no program in place to treat commercial, industrial and demolition waste. The Committee heard evidence that local government and private landfill sites are currently accepting such waste.<sup>226</sup>
- 9.3 The Committee notes that there is technology that is available to treat such waste. GRD Minproc advised the Committee of a facility in Amsterdam that was treating 1,500 tonnes an hour of construction and demolition waste and using it to make road base, sand, and also recovering the steel.<sup>227</sup> The reason for the apparent reluctance to develop such facilities in Australia was discussed during the hearing with officers from GRD Minproc:

***Mr France:** One of the reasons is you cannot get acceptance for the products. One of the main offtakes is road-base product. Government authorities like Main Roads will not accept it; they consider there is too much risk associated with using that product compared with virgin material. They would rather pay slightly more for virgin materials than use a recycled product, even though you can prove it has the same specs. They have this idea in their head that there must be a little risk. I am sure that they have their own good reasons.*

***The CHAIR:** There is no scientific basis to their mindset?*

***Mr Kelsall:** It is used in Europe. I guess the one issue we face in Australia is that the cost of virgin materials is still relatively cheap. We have so much land that landfill is cheap, and so there is no imperative to make those decisions, if that makes sense.<sup>228</sup>*

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<sup>226</sup> Ms Rebecca Brown, Manager, Waste and Recycling, Western Australian Local Government Association, *Transcript of Evidence*, 26 March 2009, p9.

<sup>227</sup> Mr Rodney France, Process Consultant, Waste to Resources, GRD Minproc, *Transcript of Evidence*, 26 March 2009, p6.

<sup>228</sup> Mr Rodney France, Process Consultant, Waste to Resources, and Mr Peter Kelsall, General Manager, Waste to Resources, GRD Minproc, *Transcript of Evidence*, 26 March 2009, pp6-7.

**WASTE MANAGEMENT PLANS FOR DEVELOPMENTS**

- 9.4 It was submitted that local governments need to have the power to request waste management plans from developers as part of development applications.<sup>229</sup>
- 9.5 At its meeting in November 2008, the Waste Authority resolved that legislation should be enacted to enable such power within local governments. There has been no action taken by the Government so far in relation to this.<sup>230</sup>

**Recommendation 13: The Committee recommends that the Government enact legislation to enable local government to be empowered to require that land developers submit waste management plans with respect to municipal waste as part of development applications.**

**Recommendation 14: The Committee recommends that the Government enact legislation to enable local government to be empowered to require that land developers submit waste management plans with respect to commercial and industrial and construction and demolition waste as part of development applications.**

**LANDFILL ALLOCATION TRADING**

- 9.6 The Committee notes that in some countries a trading scheme has been implemented whereby landfill allocation credits may be traded.
- 9.7 The Committee received the following evidence of the current operation of such a trading scheme in the United Kingdom:

*Mr France: It is like carbon firm, is it not? The east council has got an allowance of how much they can landfill each year. If they exceed that, then they cop the penalty. But some councils have got a bigger allowance than others and plenty of airspace and they can trade them between councils. Someone who has run out of land space can actually trade —*

*Hon PAUL LLEWELLYN: So the advantage is that you become an effective reducer of your waste and manage it well, except if you are burning it completely.*

<sup>229</sup> Submission No 38 from Mr Bruce Bowman, State President, Waste Management Association of Australia, 6 February 2009, pp4-5.

<sup>230</sup> Letter from Mr Barry Carbon, Chair, Waste Authority of WA, 9 April 2009, p2.

**Mr Kelsall:** *And then they have something to trade off.*

**Hon PAUL LLEWELLYN:** *And then you would be able to sell your landfill rights to another council.*

**Mr Kelsall:** *If you do get hold of some of the English press, you will see that is what the councils are currently doing. The councils that feel as though they are behind the eight ball as far as their time frame are actually now trying to buy from other country councils and do some trading.*

**Hon PAUL LLEWELLYN:** *You can turn your waste into air through combustion. Does it hold the danger that you do not actually do full recovery?*

**Mr Kelsall:** *That is a very good point. But the EU regulations actually talk about a certain percentage of recyclable has to be recovered.*

**Hon PAUL LLEWELLYN:** *So they have targets in association with that.*

**Mr Kelsall:** *What we see is that that has been pushed to the limit by some of the councils. We feel as though they are going to be pulled up on that, because certainly the objective is to maximise the recovery of materials, and then energy, of your residual product.*

**Mr France:** *They brought out another initiative just last year, I think it was, where they basically said to all countries in the EU, "You've got to meet at least 50 per cent diversion from landfill by 2013" I think it was, or 2015.*

**Hon PAUL LLEWELLYN:** *But you also have to meet recovery targets as well.*

**Mr France:** *Yes.*

**Hon PAUL LLEWELLYN:** *Because having a diversion from landfill and putting in a big levy could have the perverse outcome that you actually do not get recovery; you just get conversion into waste. There is this distinction that we have to make that if you increase the levy, you have also got to have other targets. Otherwise, people will just burn everything and that will cause another problem and we will not be here discussing odours; we will be here discussing PCBs or some other nasties.*

*Mr Kelsall: Just on that, an interesting trend that we saw in the UK last year was that a lot of schemes were talking about a similar process to focus on recyclable recovery and production of compost and that sort of thing. Then when the oil price absolutely spiked last year, these councils started to do a turn of thought: let us rejig the scheme to try to maximise the energy recovery from that. And because all the consultation they had had was based on a process flow—as we have discussed, it is mainly focusing on recovery and recycling—they have hit themselves head-on into public protests now because it is not what people understood was going to happen. The whole education process is very important. I think of what has just been mentioned with regards to making sure you set diversion targets, but you also, within that, are quite clear about what you expect on recycling. It needs to be two pronged; otherwise we will not achieve the long-term objective, which is all about getting the best reuse of the materials that end up going to waste facilities.<sup>231</sup>*

- 9.8 The Waste Authority advised the Committee that it has not looked at introducing such a scheme in Western Australia. The Deputy Chair of the Waste Authority advised:

*The metropolitan area has 15 years of landfill left. Our approach is about reusing rather than filling up landfills.<sup>232</sup>*

### THREE BIN COLLECTION

- 9.9 It was submitted that municipal waste should be separated into three bins by households for collection, being one bin each for:<sup>233</sup>
- a) general, non-organic, household waste; and
  - b) recyclable materials; and
  - c) organic waste.
- 9.10 The Committee notes that the City of Bayswater has a fortnightly collection service in relation to a third, brown-topped, “green waste” bin.<sup>234</sup> The Committee also notes that

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<sup>231</sup> Mr Rodney France, Process Consultant, Waste to Resources, and Mr Peter Kelsall, General Manager, Waste to Resources, GRD Minproc, *Transcript of Evidence*, 26 March 2009, pp10-11.

<sup>232</sup> Ms Jan Grimoldby, Deputy Chair, Waste Authority of WA, *Transcript of Evidence*, 26 March 2009, p9.

<sup>233</sup> Submission No 38 from Mr Bruce Bowman, State President, Waste Management Association of Australia, 6 February 2009, p8.

<sup>234</sup> <http://www.bayswater.wa.gov.au/scripts/viewarticle.asp?NID=4958> (viewed on 5 May 2009).

a three bin collection strategy has been adopted in Adelaide,<sup>235</sup> Latrobe City in Victoria,<sup>236</sup> in parts of New South Wales and in Christchurch, New Zealand.<sup>237</sup>

- 9.11 WALGA noted that the extent of resource recovery and recycling was more significant than the collection scheme adopted by a local government:

*Local governments have in place a number of different systems in Western Australia. Our focus very much has been on outcomes-based regulation. If a local government can achieve a benchmark—say 60 per cent, 70 per cent recovery, whatever the benchmark is—then the actual system itself should not be mandated. It should be up to the local government to work out the solutions that best fit their community.*<sup>238</sup>

- 9.12 The Committee noted the peculiar situation in the City of Stirling, where only one bin is collected:

*I think that the most outstanding inconsistency people talk about is that the City of Stirling chooses to have a one-bin system. It is probably the only significant shire in Australia that does that. There are lots of views about whether that is doable or not. It is probably locked into its long-term contract in the treatment plant that it set up there. There are divergent views about whether it should be made to do this. As for the rest of them, I think we have amazing uniformity in Western Australia. Although some of the how-to bits are different because of the different geography, just about everyone has the capacity to separate the waste at the source. There are questions about whether we should have two or three bins, but they have the capacity to separate the waste at the source. All the regional governments are moving towards a secondary treatment of waste and all of them are facing the same sort of problem.*<sup>239</sup>

- 9.13 It was noted that the City of Stirling has a materials recovery facility, where all the waste collected in the City of Stirling is hand-sorted.<sup>240</sup> Recyclable products are

<sup>235</sup> Submission No 38 from Mr Bruce Bowman, State President, Waste Management Association of Australia, 6 February 2009, p8.

<sup>236</sup> <http://www.latrobe.vic.gov.au/Services/Waste/ResidentialCollection/> (viewed on 5 May 2009).

<sup>237</sup> [http://www.waste-management-world.com/display\\_article/359461/123/CRTIS/none/none/1/Biowaste-down-under-New-strategy-sets-the-standard/](http://www.waste-management-world.com/display_article/359461/123/CRTIS/none/none/1/Biowaste-down-under-New-strategy-sets-the-standard/) (viewed on 5 May 2009).

<sup>238</sup> Ms Rebecca Brown, Manager, Waste and Recycling, Western Australian Local Government Association, *Transcript of Evidence*, 26 March 2009, p4.

<sup>239</sup> Mr Barry Carbon, Chair, Waste Authority of WA, *Transcript of Evidence*, 26 March 2009, p8.

<sup>240</sup> Ms Rebecca Brown, Manager, Waste and Recycling, Western Australian Local Government Association, *Transcript of Evidence*, 26 March 2009, p5.

removed at the facility, and then the organic material is composted and applied to agricultural land.

**Recommendation 15: The Committee recommends that the Waste Authority facilitate the introduction by all Western Australian local governments of a uniform, best practice, municipal waste collection system.**



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**Hon Sheila Mills MLC**  
**Chair**

**19 May 2009**

**APPENDIX 1**  
**LIST OF WRITTEN SUBMISSIONS**





**APPENDIX 1**  
**LIST OF WRITTEN SUBMISSIONS**

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**INQUIRY INTO THE MUNICIPAL WASTE MANAGEMENT IN  
WESTERN AUSTRALIA / REGIONAL RESOURCE RECOVERY  
CENTRE AT CANNING VALE  
LIST OF WRITTEN SUBMISSIONS**

From	Date	Number
<b><u>Petition 59 Submissions</u></b>		
Hon Simon O'Brien MLC	04/07/07	1
Mr Rod Olsen	26/07/08	2
Mr Rod Olsen	28/02/08	3
Mr Simon Mykolajenko	16/05/08	4
Mr and Mrs J Carbone	17/05/08	5
Mr Donald Garnett	15/05/08	6
Mr and Mrs Les and Desley Carbon	16/05/08	7
Ms Petra Bettermann	22/05/08	8
Mr John P Stratton	23/05/08	9
Mr John Mulcahy	25/05/08	10
Ms Helen Mullins	25/05/08	11
Mr Andrew Mullins	rec 26/05/08	12
Mr Stephan Bettermann	27/05/08	13
Ms Jody A Ross	28/05/08	14
Mr Kevin F Poynton, Chief Executive, Mindarie Regional Council	29/05/08	15

<b>From</b>	<b>Date</b>	<b>Number</b>
Mr Lee Clissa	04/06/08	16
Mr Scott Warner - Gillion	04/06/08	17
Mr L Jones	05/06/08	18
Ms Gisela Treagust	06/06/08	19
Ms Kathie Rowe	08/06/08	20
Ms Carmel Leon	08/06/08	21
Mr Mark Blundell	08/06/08	22
Ms Mandy Clarke	13/06/08	23
Ms Peree Mehmet	16/06/08	24
Ms Mandy Clarke	rec 18/06/08	25
Ms Christina Baines	20/05/08	26
Ms Joanne Fletcher	19/06/08	27
Ms Kathy Whelan	18/06/08	28
Ms Helen Alexander Hansen	23/06/08	29
Cr Michael Aspinall, WALGA	01/07/09	30
Ms Tarryn Hughes and Mr Martin Hughes	01/07/08	31
Ms Gisela Treagust	02/09/08	32
<b><u>Municipal Waste Management in Western Australia</u></b>		
<b><u>Submissions</u></b>		
L.R. Anderson	23/01/09	33
Mr Adrian Price	30/01/09	34
Mr Michael Littleton, City of Cockburn	06/02/09	35

<b>From</b>	<b>Date</b>	<b>Number</b>
Ms Muriel White	01/02/09	36
Mr Bruce Bowman	06/02/09	37
Mr Bruce Bowman, Waste Management Association of Australia	06/02/09	38
HEJ Smith	11/02/09	39
Councillor Doug Thompson, Chairman SMRC	13/02/09	40
Mr Dave Harris, Director Infrastructure, City of Gosnells	12/02/09	41
Cr Doug Thompson, Chairman, FORC	12/02/09	42
Casey Cahill, GRD Minproc	12/02/09	43
Mr David Bills, WA Environmental Advisor Transpacific	12/02/09	44
Mr Richard Adams, WSN Environmental Solutions	10/02/09	45
Mr Alex Sheridan, CEO Rivers Regional Council	12/02/09	46
Mr Allan Claydon, Director Works and Services, City of Mandurah	12/02/09	47
Cardno Shaping the Future	13/02/09	48
Mr Allan Moles, Pilbara Regional Council	12/02/09	49
Mr Richard Gorbunow, Serpentine Jarrahdale Shire	12/02/09	50
Mr Barry Carbon, Chairman Waste Authority	13/02/09	51
Michelle Garside, Homestrad Ridge Progress Association	13/02/09	52
Mr Keiran McNamara, Director General, DEC	13/02/09	53
Cr David Fardig, Chairman, Eastern Metropolitan Regional Council	13/02/09	54
Mr WA Bruce, Executive Director Technical Services, City of Armadale	12/02/09	55

<b>From</b>	<b>Date</b>	<b>Number</b>
Mr Ian Daniels, Shire of Murray	13/02/09	56
Mr Cliff Frewing, Chief Executive Officer, City of South Perth	13/02/09	57
Mr Kevin Poynton, CEO, Mindarie Regional Council	10/02/09	58
W (Bill) M Mitchell JP, President, WALGA	13/02/09	59
Mr Mike Ritchie, National General Manager, Marketing and Communications, SITA Environmental Solutions	13/02/09	60
Mr Thomas Rudas, Managing Director, AnaeCo	13/02/09	61
Mr David Munut, Alliance for a Clean Environment	13/02/09	62
Mr Andrew Gulliver, Chair, Compost Western Australia	13/02/09	63
Conservation Council of Western Australia	13/02/09	64
Damien Cole Group	13/02/09	65
Kwinana Industries Council	10/02/09	66
City of Canning	12/02/09	67
SMRC	10/03/09	68

**APPENDIX 2**  
**LIST OF HEARINGS**



**APPENDIX 2**  
**LIST OF HEARINGS**

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**Hearings and List of Witnesses for the Municipal Waste Management Inquiry**

**Thursday 26 March 2009**

1. Mr Barry Carbon	Chairman, Waste Authority of Western Australia
2. Ms Jan Grimoldby	Deputy Chair, Waste Authority of Western Australia
3. Mr Robert Atkins	Deputy Director General, Department of Environment and Conservation
4. Mr Stuart Cowie	Acting Director, Sustainability, Department of Environment and Conservation
5. Cr Doug Thompson	Chairman, Forum of Regional Councils
6. Mr Stuart McAll	Chief Executive Officer, Southern Metropolitan Regional Council
7. Cr Michael Aspinall	Chair, Municipal Waste Advisory Council
8. Ms Rebecca Brown	Manager, Waste and Recycling, WALGA
9. Mr Bruce Bowman	State President, Waste Management Association of Australia
10. Mr Peter Kelsall	General Manager, GRD Minproc Ltd
11. Mr Rod France	Process Consultant, GRD Minproc Ltd

**Wednesday 08 April 2009**

1. Mr Stuart McAll	Chief Executive Officer, Southern Metropolitan Regional Council
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## **Hearings and List of Witnesses for Petition 59**

### **Wednesday 18 June 2008**

1. Mr Rod Olsen	Principal Petitioner
2. Ms Mandy Clarke	Member of the public
3. Mr Andrew Mullins	Member of the public
4. Ms Christina Baines	Member of the public

### **Wednesday 25 June 2008**

1. Mr Robert Atkins	Director, Environmental Regulation, Department of Environment and Conservation
2. Mr Kenneth Raine	Manager, Environmental Hazards, Department of Environment and Conservation
3. Mr Stuart McAll	Chief Executive Officer, Southern Metropolitan Regional Council
4. Mr Terry Schulz	Managing Director, The Odour Unit Pty Ltd
5. Cr Clive Robartson	Deputy Chairman, Southern Metropolitan Regional Council
6. Mr Steven Fitzpatrick	Manager, Project Development, Eastern Metropolitan Regional Council



**APPENDIX 3**  
**EXPENDITURE OF LANDFILL LEVY FUNDS BY THE WASTE AUTHORITY<sup>241</sup>**

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<sup>241</sup> Attachment to letter from Mr Barry Carbon, Chairman, Waste Authority, 12 May 2009.



**Waste Management Branch  
Financial Review  
As at 31 March 2009**

Project Name	Operational Budget 08/09	YTD Actual to 31 Mar 09	% of Total Budget (YTD should = 75%)
		Operational Costs/Income	

**Cash at July 1, 2008**

**11,116,987**

**Revenue**

WARRA Landfill Levy Revenue	14,600,000	9,640,317	66%
Interest and Miscellaneous Revenue	880,000	585,629	67%

**Subtotal at Mar 31, 2009**

**15,480,000**

**21,342,933**

**Expenditure**

<b>Grants</b>	<b>2,370,000</b>	<b>1,726,685</b>	<b>73%</b>
Strategic Waste Initiatives Scheme & Community Grants Scheme	1,750,000	1,080,635	62%
Sponsorship	25,000	27,800	111%
Partnership Funding	420,000	370,250	88%
Waste Wise Schools Grants*	175,000	248,000	142%

<b>Waste Authority</b>	<b>1,040,000</b>	<b>277,179</b>	<b>27%</b>
Waste Strategy and Business Plan	300,000	62,435	21%
Major Initiatives	270,000	0	0%
Web Site	25,000	13,938	56%
Policy & Issue Advice for Govt	50,000	0	0%
Consultation on Landfill Levy (workshop at W&R Conference 2008)	10,000	6,292	63%
Governance & Operations	230,000	145,809	63%
Executive Support to Waste Authority	20,000	3,526	18%
Infrastructure Planning	85,000	45,180	53%
Waste Authority Chair Discretionary Fund	50,000	0	0%

<b>Local Government</b>	<b>4,765,000</b>	<b>1,182,350</b>	<b>25%</b>
Zero Waste Plan Development Scheme	2,250,000	555,499	25%
Household Hazardous Waste	1,020,000	594,220	58%
Used Oil Management	170,000	10,248	6%
Promotion of Recycling	325,000	22,383	7%
Regional Funding Program	1,000,000	0	0%

<b>State Government</b>	<b>2,485,000</b>	<b>1,651,665</b>	<b>66%</b>
Environment Protection & Heritage Council	20,000	17,731	89%
Data Program	110,000	52,950	48%
National Packaging Covenant	1,000,000	384,867	38%
Litter Prevention Strategy through KABC	640,000	640,000	100%
Levy collection & compliance	45,000	35,353	79%
Waste Wise Schools	400,000	400,000	100%
Recycled Organics Market Development	120,000	117,746	98%
Organics Communication & Industry Support	150,000	3,018	2%

<b>Staffing Costs</b>	<b>2,480,000</b>	<b>1,638,572</b>	<b>66%</b>
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Inactive 07/08 projects (with costs in 08/09)	0	195,807	
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**Total 08/09 YTD Budget & Expenditure**

**13,140,000**

**6,672,258**

**51%**

**Cash as at March 31, 2008**

**14,670,675**

**Waste Management Branch  
2007/08 Financial Report  
As at 30 June 2008**

<b>Project Name</b>	<b>Budget 07/08</b>	<b>Actual to 30 June 08</b>	<b>Variance Budget v Actual 07/08</b>
WMRA Landfill Levy Revenue - Grants Private	12,800,000	12,180,513	(619,487)
CRF Interest on Investment	400,000	631,359	231,359
<b>Total Income</b>	<b>13,200,000</b>	<b>12,811,872</b>	<b>(388,128)</b>
<b>Extended Producer Responsibility and Waste Legislation</b>	<b>1,336,000</b>	<b>819,195</b>	<b>(516,805)</b>
WARR Bills & regulations	145,000	192,300	47,300
Extended Producer Responsibility - Industry Product Stewardship Schemes	430,000	148,157	(281,843)
Container Deposit Scheme - Implementation planning	486,000	136,336	(349,664)
Container Deposit Scheme - Government Processes	275,000	342,403	67,403
<b>Organics</b>	<b>610,000</b>	<b>411,094</b>	<b>(198,906)</b>
Standards for compost from waste	304,000	285,737	(18,263)
Recycled organics future direction	194,000	77,615	(116,385)
Industry support - WMAA Compost Committee	112,000	47,742	(64,258)
<b>Working with Government (National, State and Local)</b>	<b>5,418,000</b>	<b>2,426,326</b>	<b>(2,991,674)</b>
Coordination of EPHC & NEPMs	151,000	82,376	(68,624)
National Packaging Covenant	526,000	549,798	23,798
Local Government - Strategic Waste Planning (roll out)	3,821,000	1,190,431	(2,630,569)
Household Hazardous Waste	350,000	353,090	3,090
Government purchasing	438,000	218,401	(219,599)
DEC leading by example	132,000	32,231	(99,769)
<b>Emerging Priorities</b>	<b>1,772,000</b>	<b>819,431</b>	<b>(952,569)</b>
Policy interventions (including for used oil, landfills, C&D waste, strategic waste plans, recycling and resource efficiency)	527,000	332,529	(194,471)
Recovery and disposal capacity	512,000	43,863	(468,137)
Waste Management Board Support	247,000	206,922	(40,078)
Provision of information and evidence of delivery	486,000	236,117	(249,883)
<b>Strategic Partnerships</b>	<b>460,000</b>	<b>431,411</b>	<b>(28,589)</b>
Green Stamp	227,000	185,843	(41,157)
MWAC (CCWA)	100,000	86,000	(14,000)

CECP	120,000	120,000	0
Waste and Recycling Conference	13,000	18,969	5,969
SWIS involvement	0	20,599	20,599
<b>Waste and Resources Awareness and Promotion</b>	<b>2,115,000</b>	<b>876,583</b>	<b>(1,238,417)</b>
Towards Zero Waste Website	103,000	91,483	(11,517)
Towards Zero Waste Households and Events	1,364,000	137,100	(1,226,900)
Waste Wise Schools	400,000	400,000	0
Waste Wise Schools Grants	248,000	248,000	0
<b>Litter Prevention</b>	<b>640,000</b>	<b>640,000</b>	<b>0</b>
Litter Prevention Strategy through KABC - Grants Private	640,000	640,000	0
<b>Business Management Support</b>	<b>2,517,000</b>	<b>1,855,376</b>	<b>(661,624)</b>
Levy compliance & WMRA Administration	378,000	340,547	(37,453)
Management of grant contracts and non-grant funding schemes	2,139,000	1,514,830	(624,170)
<b>Thematic Tenders and New Grants</b>	<b>2,620,000</b>	<b>15,128</b>	<b>(2,604,872)</b>
Thematic Tenders and New Grants	2,620,000	15,128	(2,604,872)
<b>Total Expenditure</b>	<b>17,488,000</b>	<b>8,294,545</b>	<b>(9,193,455)</b>

**Waste Management and Recycling Account**  
**Profit and Loss Statement for the year ended 30 June 2007**

	Total Budget 2006-07 \$	Actual 2006-07 \$	Variance 2006-07 \$
<b>Cost of Services</b>			
<b>Strategy and Policy - Expenditure</b>	<b>1,490,212</b>	<b>619,352</b>	<b>-870,860</b>
Strategy and Policy including WRRIP	851,021	288,867	-562,154
Data Evaluation and Reporting	639,191	330,485	-308,706
<b>Stakeholder Programs</b>	<b>2,694,583</b>	<b>1,373,247</b>	<b>-1,321,336</b>
Business & Industry Waste Reduction	1,773,180	257,690	-1,515,490
Government Waste Reduction	198,954	115,405	-83,549
Rural, Regional and Remote Project Coordination	222,449	79,122	-143,327
Hazardous Waste Precinct	-	80,032	80,032
Best Practice Container Deposit System/s for WA	-	236,252	236,252
Strategic Partnership Placements	-	104,732	104,732
Community Litter Prevention Strategy	500,000	500,013	13
<b>Product Programs</b>	<b>2,755,207</b>	<b>1,256,541</b>	<b>-1,498,666</b>
Organics	455,353	253,951	-201,402
Building Products	447,333	163,857	-283,476
Packaging - including National Packaging Covenant	985,025	226,910	-758,115
Chemicals - Household chemical waste	496,940	295,470	-201,470
E-Waste - Electrical and electronic waste recycling	130,091	9,996	-120,095
Tyres - Used Tyre NEPM	240,465	245,554	5,089
Industrial Plastics - Market development	-	57,891	57,891
Glass - Market development	-	2,912	2,912
<b>Communication Programs</b>	<b>1,442,343</b>	<b>773,518</b>	<b>-668,825</b>
Promotion and Marketing	583,326	119,022	-464,304
Education	491,636	368,545	-123,091
Building Networks and Involvement and Waste and Recycle Conference	145,555	100,656	-44,899
Research and Survey	141,773	88,234	-53,539
Zero Waste Web Site	80,053	97,061	17,008
<b>Waste Management and Recycling Fund</b>	<b>5,075,843</b>	<b>2,995,880</b>	<b>-2,079,963</b>
<b>Administration and Grants</b>	<b>5,075,843</b>	<b>2,995,880</b>	<b>-2,079,963</b>
Coordination of 2006/07 Strategic Waste Initiatives Scheme and Community Grant Scheme	1,816,105	93,314	-1,722,791
Current Incentive Schemes	725,000	747,142	22,142
Resource Recovery Rebate Scheme and New Zero Waste Incentive Schemes	2,367,255	1,873,143	-494,112
Landfill Levy Collection and Monitoring	95,633	201,979	106,346
WMRA Review Implementation	71,850	80,302	8,452
<b>Board and Branch Coordination</b>	<b>520,252</b>	<b>497,919</b>	<b>-22,333</b>
Board Business Support	249,590	199,556	-50,034

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Branch Coordination	270,662	298,364	27,702
<b>Total Cost of Services</b>	<b>13,978,440</b>	<b>7,516,457</b>	<b>-6,461,983</b>

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**Income**

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<b>Landfill Levy - Revenue</b>			
Landfill Levy, Interest and Penalties thereon	12,700,000	9,420,882	-3,279,118
<b>Other Income</b>			
CRF Interest on Investment		337,488	337,488
<b>Total Income</b>	<b>12,700,000</b>	<b>9,758,370</b>	<b>-2,941,630</b>

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