STAKEHOLDER ADVISORY GROUP INVESTIGATION INTO BEST PRACTICE CONTAINER DEPOSIT SYSTEMS FOR WESTERN AUSTRALIA

FINAL REPORT

for
the Minister for the Environment
Western Australia

by
Stakeholder Advisory Group
on Best Practice Container Deposit Systems
for Western Australia

with the support of
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EXECUTIVE SUMMARY

The Stakeholder Advisory Group (SAG) on Best Practice Container Deposit Systems (CDS) for Western Australia (WA) was formed by the then Minister for the Environment, Hon Dr. Judy Edwards MLA in January 2006. The task of the Group was to investigate Best Practice CDS for WA.

Container deposit systems are an example of extended producer responsibility (EPR) on which the WA Government has released a policy position statement. They operate by placing a small monetary deposit on containers at the point of sale. The deposit value is redeemed by consumers when they return the container to a designated recycling location, thereby creating a financial incentive for environmentally responsible behaviour.

During 2006 the Advisory Group examined over 20 different CDS in operation around the world, including the system currently in operation in South Australia. The systems examined differ in a number of elements, including administration, financing, and collection/infrastructure. One element the systems have in common is the payment of a monetary deposit upon purchase of applicable containers, and the return of that deposit upon return of the empty container for recycling. However, the redemption level depends on factors such as the amount of the deposit and the convenience of returning containers.

In all jurisdictions examined, CDS underpinned collection rates for applicable containers in the range of 50–95% of consumption. This compares very favourably with jurisdictions that do not employ CDS, which display significantly lower rates of recovery, typically in the 20–45% range. WA's overall rate of recycling municipal solid waste (MSW) is less than 15%; under half the MSW recycling rate of most Australian States.

The SAG expects that the implementation of CDS in WA would at least double the rate of recycling for applicable containers in the state. This is likely to produce substantial environmental benefits from reduced greenhouse gas emissions, as well as reducing energy and resource consumption. Other significant benefits are likely to result from increased economic activity and employment resulting from increased materials reprocessing industries in the State.

The Advisory Group expects that CDS would reduce costs to local government and the general community, (including reducing costs associated with litter cleanup and municipal waste management). Container deposit systems are likely to be complementary to, and supportive of, the existing system of kerbside recycling provided by councils.

The SAG also notes that there will be a sizeable fund created by the implementation of CDS in WA, arising from the proportion of 'unredeemed deposits' that are created where consumers and organisations fail to return containers for recycling. This fund should be used for supporting resource recovery, and importantly, to encourage community members to participate in the scheme through social marketing and education programs. Also the Fund should be used to assist with supporting recycling in regional and remote communities.

The SAG notes that there are a number of different systems for the collection of used containers that can be employed as part of CDS. A number of overseas examples utilise automated systems for container handling, such as Reverse Vending Machines (RVMs). These systems typically display low handling and overall system costs, and in some cases run at a net profit when material value and unredeemed deposits are taken into account. It is anticipated that WA CDS should be designed to take advantages of these benefits where possible.

The SAG considered a number of different systems for the administration and governance of WA CDS. It was concluded that CDS, including the unredeemed deposit funds, should be administered by an independent body with a representative board of directors.

However, the SAG has been unable to provide conclusive advice on a number of elements of CDS design. Therefore, the Group also recommends that the State Government commission a triple bottom line economic analysis to assist with determining optimal design for CDS for WA.

Through its investigation, the SAG considers that it has gained a strong sense of what constitutes best practice for CDS. The Group considers that its recommendations represent a best practice approach to CDS for WA. These recommendations are presented below. Along with these recommendations, the Group expects best practice CDS will produce a series of beneficial outcomes, which are also presented below.

The Stakeholder Advisory Group recommends Best Practice WA CDS would:

1) ***Shift more of the burden of waste and litter management to the producers and consumers responsible for container wastes.*** This is in accord with the principles of polluter pays, EPR and Product Stewardship.

2) ***Be flexible and responsive and have the ability to improve over time, in response to changing circumstances.*** This may be achieved by sorting and processing applicable deposit containers by material type and colour (avoiding sorting to container brand), and through enabling the use of technology to assist with container handling.

3) ***Utilise different methods to collect applicable deposit containers to suit local conditions.*** This would avoid mandatory return to point of sale.

4) ***Utilise existing local waste management and reprocessing industries.***

5) ***Support regional areas through active mechanisms to create cost parity between metro and non-metro locations with regard to logistics such as transport.*** Other strategies may include subsidies, grants or loans.

6) ***Include a broad range of containers.*** The scope of deposit containers in CDS should be chosen to optimise sustainability.

7) ***Provide transparent, open and accountable mechanisms to govern and track the movement of deposit monies and quantities of recycled materials.***

8) ***Be straight forward and convenient to use while providing public education and other methods to encourage participation.***

9) ***Provide for a container deposit and a separate variable resource recovery fee, the latter only to be invoked when resource recovery of specific containers is uneconomic.***

10) ***Be enforced by government through regulation covering at least the following features*** – deposit amount, container scope, licensing conditions, fines and compliance.

11) ***Be administered by an Independent Body which is governed by a Board which is representative of stakeholders and must include members with knowledge and skills in the following areas:***

- ***Producers (packaging; food and beverage)***
- ***Resource recovery, waste management, recycling and logistics***
- ***Local government***
- ***Consumers and litter management***
- ***State government.***

12) ***Be administered by an Independent Body with functions, such that it:***

- ***Manages the fund***
- ***Audits the data***
- ***Determines licence requirements***
- ***Liaises and consults with stakeholders***
- ***Promotes research and innovation***
- ***Promotes the scheme***
- ***Provides advice to government on matters that include container eligibility and fee level***
- ***Generally supports the operation of the scheme***
- ***Seeks expert advice as required.***

13) ***Require a fund from unredeemed deposits to be established to assist the Independent Body in achieving its functions.***

14) ***Integrate, where practicable, with the South Australian CDS and be sufficiently flexible to integrate with future CDS in other jurisdictions.*** Integration should specifically address deposit amount and labelling.

15) ***Have a container deposit fee set at either 10 cents or 20 cents.***

16) ***Require that the government undertake a full independent economic analysis with triple bottom line analysis of these recommendations and expected outcomes.***

Additionally, the Stakeholder Advisory Group expects Best Practice WA CDS would:

1) ***Improve the ability of WA to move towards a more sustainable future.*** In particular, by providing improved resource efficiency and increased economic opportunities as outlined in the WA State Sustainability Strategy.

2) ***At least double the rate of recovery for applicable deposit containers in WA.***

3) ***Reduce overall cost to local government, the wider community and the environment.*** As producers and consumers are those that can affect changes in the recyclability and the recovery rate of containers, they are best placed to reduce the overall management cost. This is also achieved by removing problem materials from other waste and recycling streams.

4) ***Support and/or expand local waste management and reprocessing industries in WA.*** This can be supported by providing a steady stream of high volume uncontaminated materials for reprocessing, and through other incentives, such as government procurement policies incorporating recycled content.

5) ***Assist non-metropolitan participation in recycling activities.***

6) ***Promote improved packaging.*** This can be achieved by creating economic and other incentives for companies to improve the packaging they use.

7) ***Support community participation.***

8) ***Reduce litter in WA.***

9) ***Provide new opportunities for the recovery of materials other than applicable deposit containers.*** By providing convenient drop off locations for a variety of waste products for which EPR schemes may be established, such as batteries, computers etc.

10) ***Support the introduction of a national CDS.***

1. INTRODUCTION

1.1. Recycling and Waste Management in WA

Almost every kind of economic activity creates some kind of waste. In this respect the WA economy is particularly intensive, reflecting rapid growth and the high consumption lifestyle of most Western Australians.

Approximately 600 kilograms per person of municipal solid waste and recycling was generated in Perth in 2004–05.[1]This figure equates to an annual state-wide generation of over 1 million tonnes of municipal solid waste and recycling for WA. Under 15% of this material is currently being recycled and this is significantly lower than most other States and Territories[2] (See Figure 1).

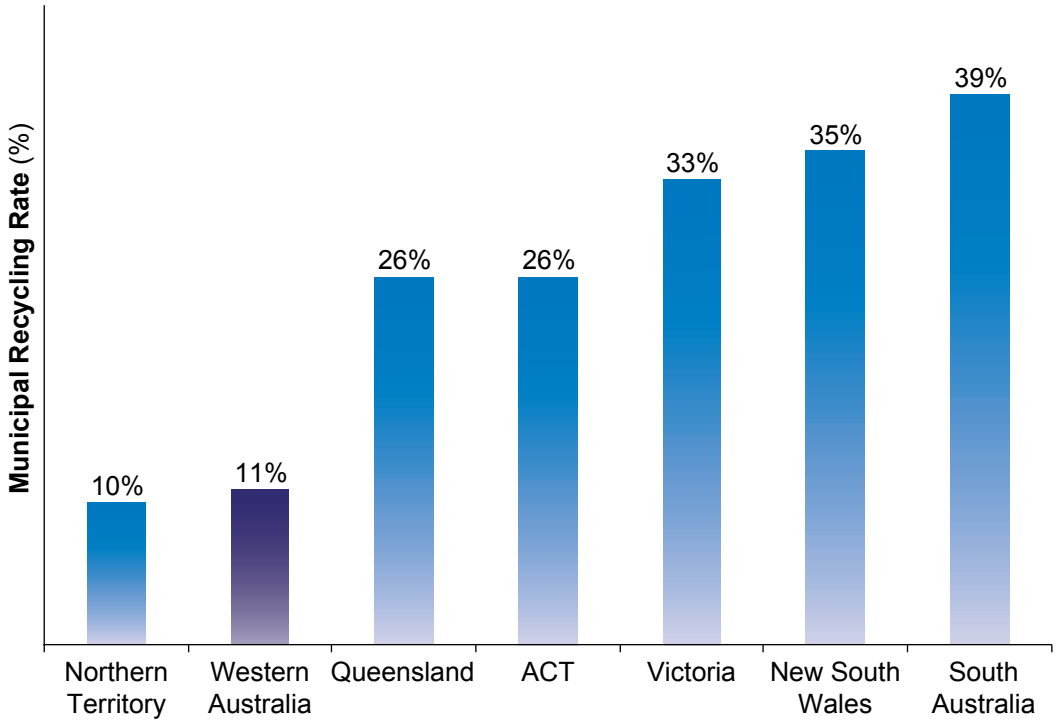

Figure 1. Municipal Recycling Rates in Australia for 2002–03 as Percentages

Recycling rates show the percentage of waste generated in each waste stream (tonnes to landfill disposal plus tonnes recycled) that was recycled.
WA Waste generation estimates incorporate landfill disposal data that are for metropolitan Perth only.
SA Data are for calendar year 2003. Recycling data includes meat waste, a prescribed industrial waste.
NT data is a Productivity Commission estimate
Data source: AGO (unpublished); DEH (sub. 103, att. A); NEPC (2003, 2005b).

[1] Department of Environment and Conservation data
[2] Productivity Commission (2006), Waste Management—Productivity Commission Inquiry Report No 38, 20 October 2006 (p17).

When data from 2001 for container consumption[3], and WA recycling data for the same year were compared[4], a significant quantity of containers were still being wasted. If CDS with a recovery rate of 75% was introduced to complement other recycling services, WA recycling would have increased by over 45 000 tonnes, which would have tripled municipal container recycling in 2001 (See Figure 2 for details).

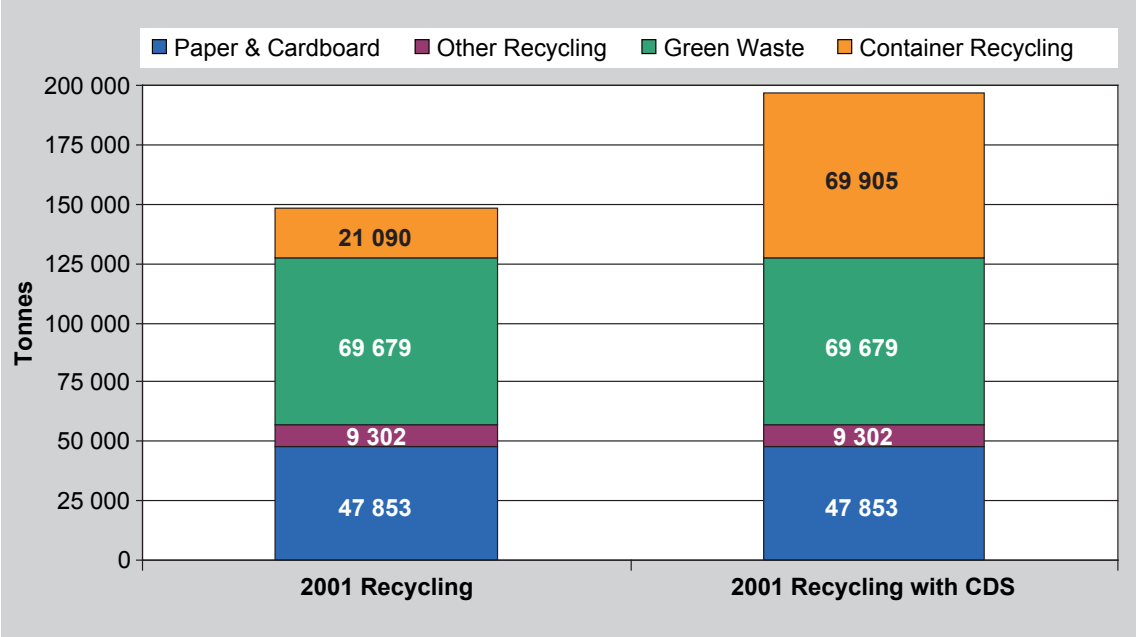

Figure 2. WA Municipal Recycling Figures for 2001 (tonnes) Compared to Estimated Recycling Figures if CDS had been Operating

Related to the low rate of recycling in WA is the lack of secondary reprocessing facilities located in the State. In recent years WA's only cardboard and glass reprocessors have ceased to operate. The economics of glass recycling in WA can now be classified as marginal at best as a result of the increased cost of transporting used glass to South Australia.

This loss of reprocessing infrastructure is not only having a negative effect on the economics of recycling in WA, but also represents an increased environmental impact (due to increased greenhouse emissions from transport), and a loss of economic activity and employment in WA.

To address the situation of a very low recycling rate in WA and a declining recycling and reprocessing industry, the WA government has implemented or initiated a suite of initiatives, including:

- Increasing the landfill levy to create an economic incentive for recycling and to raise funds to support recycling and waste reduction;
- Developing new dedicated waste management legislation;

[3] White, S. (2001b). 'Independent Review of Container Deposit Legislation in New South Wales' (Final Report Volume 2). URL: <http://www.isf.uts.edu.au/CDL_Vol2.pdf>.

[4] 2001 Western Australian Resource Recovery Rebate Scheme Figures.

- Working with industry to develop Product Stewardship schemes for priority wastes;
- Creating a Statutory Waste Authority to develop programs and policies to assist the transition Towards Zero Waste in WA;
- Investigating the introduction of best practice CDS in WA.

1.2. Policy Context

1.2.1. Sustainability

The WA Government is committed to a sustainable future for WA. Sustainability is defined by the WA Government as meeting the needs of current and future generations through integration of environmental protection, social advancement and economic prosperity.[5]

1.2.2. Waste Management and Resource Efficiency

The majority of environmental impacts can be attributed to the material consumption and waste associated with a high consumption society. These impacts occur at all stages in production and consumption systems and include greenhouse gas emissions, impacts from raw material extraction, water and other resource depletion, and pollution associated with waste disposal.

Reducing waste and improving resource efficiency are therefore important elements in achieving sustainability in WA.

The WA State Sustainability Strategy sets ambitious targets in this area:

To achieve a four-fold increase in eco-efficiency and to reduce the ecological footprint of the WA economy by a factor of two by 2020.[6]

The Principle of Waste Minimisation is also enshrined in the *Environmental Protection Act (WA) 1986*:

All reasonable and practicable measures should be taken to minimise the generation of waste and its discharge into the environment.[7]

In addition, the WA Government has established the Waste Management Board, which is now facilitating the transition Towards Zero Waste in WA by developing and implementing policies and programs to reduce waste and support recycling.[8]

1.2.3. EPR and the Polluter Pays Principle

The WA Government has adopted an EPR policy as an important part in the overall strategy to reduce waste and improve recycling. The basis of the EPR policy adopted by the WA Government is:

[5] Government of WA (2003), State Sustainability Strategy (p4).
[6] Government of WA (2003), State Sustainability Strategy (p276).
[7] *Environmental Protection Act (WA) 1986* Part1, Section 4A5.
[8] Waste Management Board of WA (2006), 2006/07 Business Plan and Budget.

…that producers and suppliers of products have a vital responsibility for the wastes created during their products' lifecycles, including consideration of what happens to the product after its useful life has ended.

In this way, EPR schemes act to shift the costs of waste management away from local government and the community in general, towards producers of those products that are the cause of the waste. This is consistent with the below important principles of the *Environmental Protection Act 1986* (WA) relating to improved valuation, pricing and incentive mechanisms:

(1) Environ*mental 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 solution*s and responses to environmental problems.[9]

In the context of EPR policies, it is considered necessary that producers accept financial responsibility for waste products. This provides an economic incentive for the design and manufacture of more environmentally friendly products that do not present significant waste management problems at the end of their useful life.[10]

The WA Government is developing new dedicated waste management legislation as an election commitment of the state Labor Party. The Waste Avoidance and Resource Recovery Bill will include powers to support mandatory EPR schemes for various waste products where voluntary arrangements are ineffective.

1.3. Background on CDS

Container deposit systems are an example of EPR as they transfer part of the waste management cost for applicable containers away from municipalities, and towards the producers and consumers of those containers.

Container deposit systems operate by placing a small monetary deposit on containers at the point of sale. The deposit value is redeemed by consumers when they return the container to a designated recycling location, thereby creating a financial incentive for environmentally responsible behaviour.

Historically, voluntary deposit systems operated in a number of jurisdictions including WA where beverage producers used refillable bottles. With the phase-out of these refillable bottles and their replacement with single use containers, the voluntary deposit systems were also phased out.

[9] *Environmental Protection Act (WA)* 1986 Part1, Section 4A4 (1-4).
[10] Government of WA (2005) Extended Producer Responsibility Policy Statement (p2).

The SAG has noted that mandatory CDS are operating successfully in many jurisdictions, including Canada, the United States, Europe and in South Australia. The primary motivation behind these mandatory CDS is to promote high levels of recovery of empty containers, thus providing them for recycling and/or refilling and removing them from the litter and waste streams.

The SAG notes that rates of recovery achieved by CDS typically range from 50-95% of consumption. This is significantly higher than rates achieved in jurisdictions where non-deposit systems of recovery are used, including WA.

Due to a combination of cultural, economic and geographic factors, CDS differ significantly in a number of elements.

Elements of CDS that differ significantly between jurisdictions include:

- Governance and administration, including the degree to which the scheme is managed and controlled by industry;
- Collection systems and infrastructure, including the return of containers to the point of sale, return to recycling depots and the use of automated systems, such as RVMs for container return;
- Economic and cost factors, including the deposit level, the use of separate handling fees, and the ownership and use of unredeemed deposits; and
- Community participation and marketing, including advertising and promotion of the scheme.

1.4. Group Membership, Terms of Reference and Process

In November 2005 the then Minister for the Environment, Hon. Judy Edwards MLA, announced her support for the introduction of a CDS in WA. In a media statement of 27 November 2005 the Minister noted a number of potential benefits in doing this:

- To increase recovery and recycling rates for applicable containers in WA;
- To provide a mechanism for recovering the high proportion of containers that are consumed away from home and are not captured by residential kerbside recycling systems;
- To support kerbside waste collection by providing an extra revenue stream for Local Government through the redemption of deposits on containers left in kerbside recycling;
- To support recycling activities in regional areas where kerbside recycling is not economically viable due to transport costs;
- To reduce litter by providing an incentive for environmentally responsible behaviour;
- To reduce the level of contamination and increase the value of recyclate by segregating containers from other collection systems; and
- To strengthen national waste management initiatives such as the National Packaging Covenant.

In January 2006 the Minister established the SAG to investigate Best Practice CDS for WA.

The SAG has the following membership:

- The Chair, the Hon. John Hyde, MLA for Perth;
- Mr Mel Hay, the Chair of The WA Keep Australia Beautiful Council (KABC) and representing the KABC;
- Ms Carolyn Jakobsen, a member of the Waste Management Board and representing the Waste Management Board;
- Dr Sue Graham Taylor, the Senior Vice President of the Conservation Council of Western Australia and representing the Conservation Council.
- Ms Jan Grimoldby, the Chief Executive Officer of the South Eastern Metropolitan Regional Council and representing Local Government;
- Mr Paul Wright, the State Manager of SITA Environmental Solutions Pty Ltd and representing the Waste Management Industry;
- Ms Anne Braithwaite, the State Manager for the Packaging Stewardship Forum, a working group within the Australian Food and Grocery Council, and representing the Beverage and Packaging Industries;
- Mr Piers Verstegen, a Senior Policy Advisor with the Office of the Minister for Environment, and representing that Office; and
- Mr David Healy, Manager Stakeholder Programs with the Waste Management Branch, of the Department of Environment and Conservation, and representing the Department.

The terms of Reference for the SAG are:

To provide advice to the Minister for the Environment on best practice CDS for WA having regard to the following important focus areas:

- Maintaining and improving on existing kerbside recycling programs
- Away from home recycling and litter
- Employment and business opportunities
- Regional and rural recycling
- Sustainable recycling programs
- Consumer costs
- Regulatory Impact
- Scope for target containers
- Community participation.

The SAG has proceeded through several phases during the process of investigating Best Practice CDS for WA, these being:

- Information gathering (Feb-July 2006)
- In depth research on key features (Aug-Sept 2006)
- Drafting & finalising advice & recommendations (Sept-Dec 2006)

During the SAG's investigations, support was provided by the Technical Support Team (TST) on matters relating to technical submissions, analysis of reports and background papers and presentations. The Group was funded from the Waste Management and Recycling Fund with the support of the Waste Management Board. Staff from the former Department of Environment (DoE) and then the Department of Environment and Conservation (DEC) provided executive support and some technical support to the SAG throughout the investigation.

2. SCOPE OF INVESTIGATION

2.1. CDS in Operation

In February 2006, the SAG began its investigation into best practice CDS for WA. Over the course of its investigation, the Group reviewed the majority of CDS existing elsewhere, including the South Australian scheme and more than twenty schemes internationally (See Appendix 1).

With regard to schemes existing elsewhere, eleven states within the United States have implemented CDS, with California (1987)[11] and Hawaii (2005) being the most recent states to implement a scheme (See Appendix 1). Most Canadian provinces have some level of container deposit redemption system in place. Across Canada there exists a wide diversity of features between the various schemes, with several of the schemes attracting additional attention from the SAG (including British Columbia and Alberta) (See Appendix 1). In Europe more than nine CDS are in operation. Several European nations have included additional concurrent charges on the products associated with the applicable containers, with those charges decreasing with increasing container recovery (Norway and Finland) (See Appendix 1).

Available information suggests several schemes elsewhere perform well, as they achieve high container recovery rates, at reasonable cost. However, due to geographic, demographic, cultural, economic and climatic factors, any implementation of CDS for WA will require a specific approach to a scheme's design to achieve best practice.

In trying to determine what constitutes best practice CDS, the SAG has drawn upon a number of resources to obtain relevant information (Appendix 1). As part of this exercise, the Group communicated with representatives from key organisations and independent experts in fields relevant to CDS, including people with detailed knowledge of the South Australian scheme, the Californian scheme and the British Columbian scheme.

During the investigation, a delegation of members from the SAG travelled to South Australia to gain a better understanding of how that system operates. Delegation members visited several sites of interest, including:

- A central processing facility for recycled containers;
- Waste management industry facilities to see how the scheme interacted with other waste services;
- Several metropolitan and regional recycling depots to understand the specifics of how the scheme interacts with the South Australian community; and
- The State Government offices to discuss with staff details regarding the scheme's enforcement and how staff assisted the scheme's objectives.

Furthermore, as part of the process of the investigation, the SAG coordinated with the organisers of the WA Waste and Recycle 2006 Conference to include a public workshop on

[11] The Californian system differs somewhat from other schemes, but it has enough similarities to be included under the umbrella term of CDS for the purposes of the SAG's investigation.

CDS (19 September 2006). Here a panel of local, national and international experts and key stakeholders were guided through a scenario planning process to explore the possible benefits and issues associated with implementation of CDS in WA. The Group members were able to observe the proceedings (with one member participating on the panel), and subsequently enter discussions with panel members and audience members during the day. The panel included representatives from the packaging & beverage industry, processors and traders of recycled materials, suppliers of RVMs, non-government organisations, local government, state government, research and consulting organisations, and several conference speakers who have been professionally involved in CDS internationally (See Appendix 2).

Additionally, the SAG received correspondence and several submissions from external parties during the course of its investigation (See Appendix 3).

Through all of these means, the Group was able to determine both the potential issues and the possible benefits that can result from implementing CDS in WA.

2.2. Elements of CDS

As part of the investigation, the Group was required to produce suitable recommendations regarding a best practice system for WA. This required the Group to differentiate between features of other systems on the basis of their appropriateness for WA. To make such differentiations the Group set about characterising and comparing systems and their features.

Broad areas where systems may differ include:

- Governance and administration;
- Collection systems, infrastructure and costs ; and
- Community participation and marketing

Important distinctions within the broad areas listed above are set out below:

2.2.1. Governance and Administration

2.2.1.1. Governing Body

Generally three methods of governance and administration for CDS exist in other jurisdictions – industry controlled systems (as in South Australia, Quebec, Finland and British Columbia); government controlled systems (which include California and Hawaii); and systems controlled by an independent governing body representing several key stakeholder groups. Where industry controls a system, cost minimisation is emphasised. However, where government or an independent body runs a system, recovery and wider community benefit is often an increasing focus. Throughout the investigation, the SAG has tried to find an approach that meets both of these aims in a way that is broadly acceptable to the community and key stakeholders.

2.2.1.2. Regulation

Various requirements are enforced through laws and regulations elsewhere, to drive the success of CDS. In several cases, a required recycling rate is mandated by government and an

industry run system is required to comply, or else penalties of various forms are incurred (such as British Columbia and Finland). In the South Australian system, the government registers which containers can be used with regard to the retail products covered by the system.[12] Furthermore, most existing CDS have requirements for the correct labelling of applicable containers and have enforcement measures in place to manage non-compliance.

The SAG only offers general advice on regulation, as they think specific advice would be more appropriately determined at a later date by others with legal and legislative expertise.

2.2.2. Collection Systems, Infrastructure and Costs

2.2.2.1. Return Methods

Several redemption methods have been employed by CDS elsewhere. The methods of container return constitute a key factor in the cost and success of any CDS.

Many systems rely on a return to point of sale as a means of redemption (most of the systems in Europe and the USA). This provides the highest level of convenience and gives good coverage, but the costs tend to be significantly higher under these systems. Previous research indicates that the foregone value of floor space and handling requirements at retail operations are the major contributors to the higher expense of these systems[13]. Nevertheless, in some cases return to point of sale may prove to be viable under the correct system design. Examples of this may include very remote sites or when industry places redemption infrastructure near retail operations to maximise passing trade through cross marketing (such as with in-store discounts).

Another commonly utilised method of redeeming containers is through a network of depots such as in South Australia, Alberta, Nova Scotia, and as part of the system in California. A depot system offers less convenience for container redemption, but it tends to reduce the overall cost of a system. Furthermore, depots are better for the return of larger batches of containers, such as with returns by commercial operations i.e. hotels, restaurants and the like.

Since the 1990s, automated container redemption technology, otherwise known as reverse vending machines (RVMs), have become more common. These offer increased convenience, potential cost savings[14] and improved handling. In some jurisdictions, RVMs have been utilised to improve the efficiency of return to point of sale schemes (often in Europe and increasingly in the USA), while other jurisdictions have utilised dedicated RVMs housed near shopping precincts in an effort to optimise convenience while reducing overall system cost (California)[15].

[12] South Australian Environment Protection (Beverage Container), Regulations 1995 (under the *Environment Protection Act 1993*). Online: <http://www.legislation.sa.gov.au/LZ/C/R/ENVIRONMENT%20PROTECTION%20(BEVERAGE%20CONTAINER)%20REGULATIONS%201995/CURRENT/1995.41.UN.PDF>.

[13] White, S. (2001). 'Independent Review of Container Deposit Legislation in New South Wales (Vol 1-3). Online: <http://www.isf.uts.edu.au/CDLReport/>.

[14] Revive Recycling, Letter to Hon. Mark McGowan MLA, 29 September 2006.

[15] See Beck RW Inc (1999) 'Understanding Beverage Container Recycling: A Value Chain Assessment'. Online: <http://www.globalgreen.org/bear/Projects/index.html>.

2.2.2.2. Redemption

The normal practice with CDS is for community members to return empty applicable containers to a redemption location (be it a retail location, a depot or a RVM), whereby they receive in return the value of the deposits on the containers (either as money directly or as a voucher which can be redeemed for money at other locations). This approach seems fairly universal, with minor variations in some systems.

2.2.2.3. Operational Cost Factors

As CDS will involve the establishment of some new infrastructure and collection systems, this will require funding and provision for that funding. Several funding mechanisms are utilised to fund system operations elsewhere, and some of these approaches to funding warranted further investigation by the SAG. Commonly, unredeemed deposits have been used to assist with funding the operation of systems, whether those unredeemed deposits are retained by industry, held in trust and controlled by an independent organisation, or held and utilised by jurisdictional governments directly. In many cases the value of the recyclate is also used to fund operational expenses of the system. Furthermore, additional charges, levies or industry contributions are often required to supplement funding for operational activities.[16]

2.2.3. Community Participation

2.2.3.1. Social Marketing

Where systems provide a suitable network of convenient redemption locations, recovery levels tend to be significantly improved. However beyond the simple mechanics of container recycling being more attractive if redemption locations are closer to consumers, CDS provides an opportunity to engage the public through the motivation of a redeemable deposit, while effective social marketing can be applied to build up the recycling ethos in the community.

This is an important part of CDS generally, as the community can begin to value the containers as a resource, and this sense of value can be linked to environmental protection through waste avoidance and reduced pollution.

2.2.3.2. Fund Raising

CDS can provide an opportunity for community organisations to assist with funding their organisation's activities. This can occur either through fundraising events or through being directly involved in running collection facilities. In South Australia, the SAG visited a collection depot operated by the Scouts Association, which generates considerable revenue for the organisation through its container recycling business.

[16] See information regarding Recommendation 9 on page 39 below for more detail.

2.3. Special considerations for WA

Furthermore, there exist several other matters that received special consideration by the SAG, as follows:

- Improving regional recycling by determining possible approaches to reducing costs for participation;
- Understanding any possible effects and benefits of CDS for current kerbside recycling, and determining that there is likely to be a low risk of negative impact;
- Determining that CDS are highly likely to improve away from home recycling and reduce litter;
- Becoming aware of legal issues, and indicating further legal advice is required;
- Suggesting approaches where the community can become more involved in recycling under CDS; and
- Indicating how sustainability can be furthered by CDS.

2.4. Formulation of Advice

During the course of the Advisory Group's investigation into best practice container deposit systems for Western Australia, numerous Australian and international studies and other information resources were considered by the Advisory Group. These resources informed the Advisory Group's discussions and deliberations in formulating best practice systems for WA, and are outlined in section 2 (subsection 2.1) and detailed in Appendix 1 of this report.

3. RECOMMENDATIONS AND OUTCOMES

3.1. Sustainability in WA

As discussed in the introduction to this report, the Government of WA has implemented a sustainability framework which emphasises the need to dramatically improve resource efficiency and reduce waste generation in the WA economy.

Recycling of materials provides a significant reduction in environmental impact when compared to use of virgin resources in production. Materials that are used in non-recycled containers become a lost resource. The metals, fibres and polymers that make up the containers have an associated embodied energy that is also foregone when these materials are not recycled.

Available data suggests that the effect of materials recycling on reducing greenhouse emissions, water and energy use is significant. Data from the Boomerang Alliance suggests that the implementation of one style of CDS in WA, with reasonable expected recovery rates would save over 67,000 tonnes of greenhouse gas emissions - equivalent to switching over 9,500 homes to 100% renewable energy. [17]

Similarly, the same research estimated that water saved during manufacturing as a result of new recycling caused by CDS would be more than 1.5 gigalitres.[18]

Elsewhere in Australia research indicates that for every tonne of recycled aluminium that is substituted for virgin material use, over 14.5 tonnes of CO_2 equivalents are not emitted into the atmosphere[19]. Effective deposit container recycling in WA would:

- Reduce CO_2 emissions by tens of thousands of tonnes per year;
- Save significant quantities of embodied energy that would otherwise be foregone when these materials are not recycled;
- Reduce the production of smog precursors during manufacture;
- Save hundreds of millions of litres of water throughout the production process; and
- Save tens of thousands of tonnes of waste that would otherwise go to landfill.

Effective recycling improves resource efficiency through steering economic activity towards closed loop material usage and better energy management. This reorganisation of material flows through the economy should assist new enterprises to establish and is likely to provide a foundation for future industries that are more sustainable.

[17] West D. (2006) *Container Deposits – The Common Sense Approach. Boomerang Alliance* (Online:<http://www.boomerangalliance.org/000_files/Final_Container_Deposits___the_common_sense_approach.pdf>).

[18] *ibid*

[19] McLennan Magasanik Assoc Pty Ltd & BDA Group (2003). *'The potential of Market Based Instruments to better manage. Australia's waste streams'* (For Environment Australia). Online: <http://www.deh.gov.au/settlements/publications/waste/mbi/study-2003/pubs/study.pdf> (p 14).

Expected Outcome:

The SAG expects Best Practice WA CDS to:

Improve the ability of WA to move towards a more sustainable future, in particular, by providing improved resource efficiency and increased economic opportunities, as outlined in the WA State Sustainability Strategy.

3.2. Recovery of Deposit Containers

The SAG expects CDS to significantly increase container recycling beyond current levels for WA. Although current recycling systems, such as kerbside recycling, have shown a good ability to recover materials, a significant proportion of applicable containers are not managed effectively by current recycling services (See figure 3). This is especially true of containers for products consumed away from home. The applicable containers consumed away from home often end up in the general waste stream, even if recycling services are offered in the areas where they are consumed, or else they can end up as contaminated recycling.

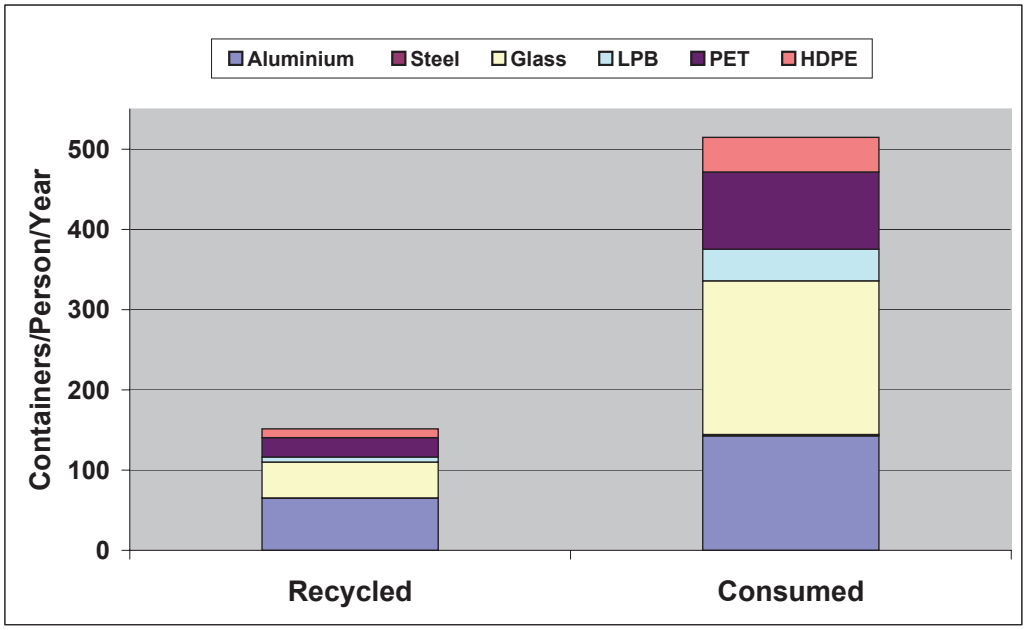

Figure 3: Container Consumption versus Estimates for Container Recycling for WA.

Container deposit systems are likely to improve the recovery of containers that are presently consumed away from home. The away from home consumption has been estimated to be approximately half of all containers used.[20] South Australia, which is the only jurisdiction with container deposit legislation in Australia, recycles about three times as many aluminium cans, almost four times the amount of plastic containers, and more than twice as much glass as is currently recycled in WA.[21]

[20] White, S. (2001b). 'Independent Review of Container Deposit Legislation in New South Wales' (Final Report Volume 2). URL: <http://www.isf.uts.edu.au/CDL_Report/Vol2/CDL_Vol2.pdf>.

[21] Media Statement – Judy Edwards (28 November 2005), Edwards backs container deposit for WA. Online: <http://www.mediastatements.wa.gov.au/media/media.nsf>

Previous research indicates approximately 515 containers are consumed per person per year.[22] When WA kerbside recycling figures were converted into container numbers per person per year, kerbside recycling was shown to be recovering about 102 containers per person per year.[23] Additionally, estimates place the rate of away from home recycling at around 49 containers per person per year. These figures provide an estimate of total recovery for WA of 151 containers per person per year or 29% of all containers.[24] Container deposit systems elsewhere commonly achieve 75% container recovery (for applicable containers). Therefore, if WA CDS achieve 75% recovery, that would at least double the State's current container recycling (See Table 1 for more detail).

Table 1. Comparison of consumption and recovery of containers at home and away from home.

	At Home	Away from Home	Total
	containers per person per year and (as a percentage of all containers)		
Estimate of Total Container Consumption	258 (50%)	257 (50%)	515 (100%)
Estimate of Current Container Recovery	102 (20%)	49 (10%)	151 (29%)
Likely Container Recovery Under CDS	193 (37.5%)	193 (37.5%)	386 (75%)

Expected Outcome:

SAG expects Best Practice WA CDS to:

At least double the rate of recovery for applicable deposit containers in WA.

3.3. Reduce the Costs Associated with Applicable Container Waste

The SAG recognises that almost all of the costs associated with container waste are currently borne by the general community, local government and the environment (such as in the form of greenhouse emissions). These costs can be classified as social and environmental externalities affecting the environment and the community in general. It is also noted that a significant proportion of these costs are not presently accounted for in an economic sense. Together, the externalisation of costs and the failure to account for costs result in market failure – in this case, a failure to provide the best (or desired) social and environmental outcome (i.e. container recycling).

[22] White, S. (2001b). 'Independent Review of Container Deposit Legislation in New South Wales' (Final Report Volume 2). URL: <http://www.isf.uts.edu.au/CDL_Report/Vol2/CDL_Vol2.pdf>.

[23] Based on Resource Recovery Rebate Scheme reporting data and other compiled data from West D. (2006) *Container Deposits – The Common Sense Approach. Boomerang Alliance* (Online:<http://www.boomerangalliance.org/000_files/Final_Container_Deposits___the_common_sense_approach.pdf>).

[24] Derived from White, S. (2001b). 'Independent Review of Container Deposit Legislation in New South Wales' (Final Report Volume 2). URL: <http://www.isf.uts.edu.au/CDL_Report/Vol2/CDL_Vol2.pdf>. (The report indicates around 30% of away from home containers are recycled in NSW in 2001. This report has assumed WA away-from-home recycling for containers is 15% and 30% for Aluminium.)

Where costs of production and consumption are borne by those who have no direct ability to reduce those costs (the general community and local government), or where they are not accounted for at all, there is no incentive for action to be taken to reduce those costs. Conversely, according to the polluter pays principle, pollution will be minimised in the most cost-effective manner where the costs of that pollution are borne by the polluter.

The WA Government has implemented a policy framework that applies the polluter pays principle to the waste associated with the production and consumption of consumer goods.

This is articulated in the EPR policy statement for WA. The aim of EPR schemes is to shift the costs of managing wastes away from local government and the general community and towards the producers and consumers of the products that create those wastes.

Recommendation 1

The SAG recommends Best Practice WA CDS:

Shift more of the burden of waste and litter management to the producers and consumers responsible for container wastes. This is in accord with the principles of polluter pays, and EPR and Product Stewardship.

The SAG expects that CDS will transfer some of the costs of managing container waste to the producers and consumers, resulting in an overall cost reduction to local government, the wider community and the environment.

One particular characteristic of CDS is that they provide a choice for consumers. Consumers can either choose to redeem their deposits, thereby engaging in sustainable behaviour and in which case the costs they bear are minimised, or they can choose not to redeem their deposits, in which case they bear the cost of pollution by forgoing the value of the deposit. As such, CDS will not be a significant cost imposition on consumers who choose environmentally responsible behaviour.

3.3.1. Cost reduction to local government

Any cost reduction to local government will flow on to the community which largely funds the activities of local government. The SAG has identified a number of areas where CDS can be expected to reduce costs to local government.

3.3.1.1. Litter Reduction

It is expected that CDS will lead to changes in litter behaviour, particularly on highways and in public places. Experience in South Australia has demonstrated that community members will regularly collect litter for the deposit redemption, thus reducing the level of expenditure by local government on litter abatement programs.

In public places, particularly at public events such as sporting activities or concerts, community groups may take responsibility for litter collection and sorting in order to claim the redemption value as a source of fund raising. This will be of particular benefit to regional and rural communities at locations such as local sporting events.

The benefit to local government will be four-fold:

- Reducing the cost of litter collection e.g. through reduced frequency;
- Reducing the cost of waste disposal to landfill;
- Reduction in landfill air space consumption; and
- Provision of an alternative source of income for community groups other than grants provided by local government.

While it is acknowledged that CDS will not reduce the need for convenient public place waste disposal, it will potentially lead to significantly less waste being disposed of through street bins, and hence a possible reduction in the frequency of street bin collections and the number of bins at each location.

3.3.1.2. Reduced costs of municipal waste management

The SAG recognises that there are a number of complex factors that determine the costs to local government of municipal waste management, which need to be considered as part of the introduction of CDS in WA.

Waste management activities undertaken by local government are not homogeneous, with different local and regional councils employing different systems for waste collection and processing. In each case, the relative contributions to the overall cost of waste management from factors such as transport, disposal fees, waste processing, capital expenditure etc., vary. In all cases however, the provision of waste management and recycling services to WA householders represents a net cost to local government which is borne by the community at large.

The SAG recognises that there are a number of potential areas where the implementation of CDS in WA could reasonably be expected to impact on these waste management costs.

It is expected that CDS will remove a significant proportion (but not all) of the applicable containers from kerbside recycling collections. The proportion that will be disposed via kerbside collection systems will depend on the level of participation in CDS by consumers, which in turn depends on the deposit level and other factors such as the level of community awareness, education, understanding of the issues, and confidence in the system to effectively recycle the containers.

The following considerations, drawn from the experience in South Australia, have led the SAG to conclude that CDS in WA could reasonably be expected to reduce waste management costs for most local governments, for example:

- A proportion of applicable containers will still be disposed via the kerbside system, and local government will be able to redeem the deposits associated with those containers;
- The total volume of recyclables requiring collection from households will potentially be reduced, thus reducing collection and transport costs (more household recycling bins collected in each truck load), and offsetting the need for future capital investment in Materials Recovery Facilities (MRFs) to cater for increased population;

- There will be less glass in kerbside recycling streams. This can be expected to have a number of benefits including: less contamination of valuable paper and newsprint by glass fines; allow increased compaction rates resulting in transport efficiencies; and reduce wear and tear on vehicles and equipment;
- There will be less glass contamination in kerbside residual waste streams. Given that a number of local and regional councils in WA have developed composting systems for their residual waste streams that are adversely affected by glass contamination, this is expected to represent a significant benefit;
- The redemption of container deposits will stabilise income to councils, as deposit levels and disposal to kerbside are expected to remain relatively stable. This is an important consideration where councils have historically been subject to fluctuating commodity prices; and
- There will be opportunities created for local government owned and operated MRFs as well as private sector operators of MRFs to become major profitable depots for the receipt of CDS and other recyclable material.

The SAG therefore expects that any lost income to local councils from a reduction in material disposed of through the recycling system will be compensated by the increased value of the material, represented by redeemed deposits, less contamination in the material itself, and other factors mentioned above. As such, it is not anticipated that the viability of existing MRFs will be negatively affected.

3.3.2. Cost reduction to the environment

The environment will benefit from the introduction of CDS in WA through two key avenues:

- Reduced upstream impacts of mining or manufacturing virgin material, including a reduction in the greenhouse emissions associated with mining and manufacturing activities (see section 3.1); and
- A reduction in litter will result in a reduction of visual pollution and reduced wildlife deaths.

Expected Outcome:

The SAG expects Best Practice WA CDS to:

Reduce overall cost to local government, the wider community and the environment. As producers and consumers are those that can affect changes in the recyclability and the recovery rate of containers, they are best placed to reduce the overall management cost. This is also achieved by removing problem materials from other waste and recycling streams.

3.4. Attracting Reprocessing Industries Back to WA

As outlined previously in this report, WA has a lack of reprocessing industries for recyclate, especially given recent closures of glass and cardboard reprocessing facilities in WA. This situation is a concern to Local and State Government, as it is contributing to low prices being paid for recyclate in WA and therefore eroding the economic viability of recycling in the State.

The SAG anticipates that the introduction of CDS in WA will help to establish the necessary conditions to increase the presence of secondary material processing facilities in WA.

The SAG notes that there are two significant outcomes resulting from the implementation of CDS in WA that may contribute in this regard:

- CDS will provide reliably higher volumes of recyclate (at least double the present amount as discussed elsewhere in this report). This is an obvious necessary precondition for a reprocessing facility to establish, given the significant capital investment required; and
- CDS will provide clean, uncontaminated recyclate because contamination is managed and source separation occurs at the point of redemption. The recyclate therefore attracts a premium price due to improved efficiency when reprocessing.[25]

Expected Outcome:

The SAG expects Best Practice WA CDS to:

Support and/or expand local waste management and reprocessing industries in WA. This can be supported by providing a steady stream of high volume uncontaminated materials for reprocessing, and through other incentives, such as government procurement policies incorporating recycled content.

In addition to the creation of more stable markets for recyclate, the SAG considers that there will be a number of other significant benefits to the State associated with the establishment of reprocessing industries, including increased employment and economic opportunities.

In a letter to the Minister for The Environment that was provided to the SAG, a private company (Revive Recycling) provided the following information:

> 'Revive Recycling has held initial discussions with a number of reprocessors who have expressed interest in setting up operations in WA if the quantity and quality of recyclables expected under a deposit system become available. In addition, we are in touch with a group that is interested in leveraging CDS to roll out broader collection and recycling infrastructure. Taken together, these represent potential investments of many tens of millions of dollars, and the creation of several hundred jobs.'[26]

[25] R.W.Beck Inc. (2002), *Understanding Beverage Container Recycling: A Value Chain Assessment*. Online: <http://www.globalgreen.org/bear/Projects/FinalReport.pdf>.

[26] Revive Recycling, Letter to Hon. Mark McGowan MLA, 29 September 2006.

3.5. Supporting Recycling in Rural, Regional and Remote Areas

The provision of recycling services via kerbside collection in non-metropolitan areas is economically constrained at present due to the high transport costs of delivering recyclate to markets. As such, a significant proportion of WA's regional and rural population do not have access to recycling facilities.

CDS will be particularly useful in allowing people who currently do not have access to existing kerbside recycling services to increase their participation in recycling activities. Estimates based on Recyclers of SA figures from 1997[27] and a study conducted by Nolan ITU in 2002[28] for the South Australian EPA, indicate that CDS has a positive impact on recycling in metropolitan and non-metropolitan areas, with it being particularly effective in non-metropolitan areas where the majority of recovered materials comes from deposit container drop-off centres.

Deposit container drop-off centres may also provide a location to recycle other items, as occurs in South Australia, where container collection depots often act as drop off points for a variety of other materials such as paper and cardboard, and pay cash for recyclable scrap metals such as copper and steel. Importantly, the CDS operating in South Australia provides the necessary basic reliable income and throughput to make such facilities viable.

Expected Outcome:

The SAG expects Best Practice WA CDS to:

Assist non-metropolitan participation in recycling activities.

While it is acknowledged and expected that CDS in WA will improve opportunities for non-metropolitan recycling, it is also acknowledged that the system can and should be deliberately designed so as to maximise those benefits. This is considered to be particularly important given the very large land area that would be covered by CDS.

A number of possible mechanisms have been discussed by the SAG which could be applied for the purpose of ensuring that WA CDS maximises opportunities for regional participation.

Where possible, consideration should be given to inbuilt mechanisms within handling fee structures and materials pricing, so as to compensate regional areas for the extra costs of transport over large distances. For example, handling fees payable to regional collection centres could be subsidised by any increased efficiencies gained through the use of automated collection systems in metropolitan areas.

Other strategies may include subsidies, grants and loans for the establishment and operation of regional collection centres. Unredeemed deposit funds should be used for this purpose where possible.

[27] Recyclers of SA website: <http://www.recyclesa.com.au/tonnages.htm>.

[28] Environment Protection Authority South Australia (2002), *Survey and Audit of Kerbside Waste and Recycling Practices and Recommended Kerbside Service Standards*.

Recommendation 5

The SAG recommends Best Practice WA CDS to:

Support regional areas through active mechanisms to create cost parity between metro and non-metro locations with regard to logistics such as transport. Other strategies may include subsidies, grants or loans.

3.6. Improving Packaging

Applicable containers are made from a variety of materials including glass, aluminium, liquid paperboard and a number of plastics and polymers. Many applicable containers are manufactured from more than one type of material, which can lead to problems with the recyclability of the container. When a container is a composite of a number of materials, it can be difficult to recycle effectively or it may not be economically viable to recycle. When this occurs, the materials in the container are not recovered and are lost to landfill.

Providing economic incentives to companies that encourage them to use packaging that is easily and fully recyclable will send a strong message to producers when they are designing new product packaging or considering changing existing packaging. Economic incentives may be positive in the form of subsidised resource recovery fees, or they could be negative such as applying higher fees for applicable containers that cannot be recycled due to the materials used in the container and its composition.

Container deposit systems could also provide opportunities to increase the use of recycled content in packaging, as occurs in the Californian system, where glass container manufacturers must use a minimum amount of recycled glass when producing new containers.[29] Other incentives for industry to improving packaging could be along the lines of those in South Australia where the Environmental Protection (Beverage Container) Regulations 1995 can stop the introduction and sale of products into South Australia that have non recyclable packaging.[30]

Expected Outcome:

The SAG expects Best Practice WA CDS to:

Promote improved packaging. This can be achieved by creating economic and other incentives for companies to improve the packaging they use.

3.7. Supporting Community Participation

The SAG notes that CDS operating in other jurisdictions with higher recovery rates have, as an important element, community education and awareness, or 'social marketing' campaigns associated with their operation. In most cases, these social marketing campaigns

[29] Online: <http://www.bottlebill.org/legislation/usa/cali.htm>.

[30] Environmental Protection Authority South Australia (1995), *Environmental Protection (Beverage Container) Regulations 1995*. Online: <http://www.legislation.sa.gov.au/LZ/C/R/ENVIRONMENT%20PROTECTION%20(BEVERAGE%20CONTAINER)%20REGULATIONS%201995/CURRENT/1995.41.UN.PDF>.

are funded through unredeemed deposits, and in some cases they even provide a vehicle and opportunity for other environmental messaging. Of particular note is the social marketing undertaken by the Californian Department of Conservation and the associated website <www.bottlesandcans.com>.

It is considered essential by the SAG, particularly when new CDS are first implemented, that there be a strong focus on education and awareness raising through social marketing. Given that unredeemed deposits result from environmentally irresponsible behaviour (that is, the failure to recycle), it is considered that this activity (which seeks to reduce that behaviour) is an appropriate use of unredeemed deposit funds.

Furthermore, the introduction of CDS in WA will provide community groups with another avenue for fund raising to continue and advance their activities and services. Groups such as sporting clubs and not-for-profit community associations will be able to collect applicable containers at their facilities and during events. Community groups will be able to organise recycling drives or operate drop off centres where people donate or return applicable containers. Funds raised from the redemption of containers would assist in funding the activities and programmes of these groups and benefit their local communities and the WA community in general.

Community participation in CDS could be particularly useful for organisations in regional and rural areas where the value of recycled material previously has not been high enough to make recycling viable. By placing an artificial value on an applicable container, CDS makes it worthwhile for community groups to participate in the collection and redemption of containers.

In South Australia, participation in CDS has provided the Scouts Association, sports clubs, schools and other community groups with hundreds of thousands of dollars of funding income that has been returned to the community through their activities and services.[31] Another example of CDS supporting community participation occurs in Saskatchewan, Canada, where the Saskatchewan Association for Rehabilitation Centres has a recycling division which operates more than 70 container collection and recycling depots and strives to provide employment for people with disabilities.[32]

It is expected that CDS will provide the impetus for more comprehensive involvement in recycling in non-metropolitan communities as it will have a positive impact on the viability of recycling especially for community organisations seeking avenues for fundraising. This has been the experience in South Australia where small groups such as country-based sporting groups use their membership base to collect deposit material and use the redemption for fund raising.[33]

Expected Outcome:

The SAG expects Best Practice WA CDS to:

Support community participation.

[31] Recycler of SA website: <http://www.recyclesa.com.au/CharitiesComm.htm>.
[32] Saskatchewan Association of Rehabilitation Centres. Online: <http://www.sarcsarcan.ca/about/index.php>.
[33] Tanunda Tennis Club

3.8. Litter in WA

The SAG expects that CDS can assist with reducing littering in WA in a number of ways. The container deposit assigns a small monetary value to applicable containers, where previously, once the containers' contents had been consumed, the packaging had little or no value to the consumer. Applicable containers with a deposit level of 10 or 20 cents are less likely to be littered because they can be redeemed for money. The deposit provides an economic incentive to consumers to dispose of containers properly and acts to modify behaviour regarding littering. This change in behaviour aligns with a key focus of the Litter Prevention Strategy for WA 2006–09, to prevent and minimise litter, not just clean up once it has occurred.[34]

Some people will litter regardless of the deposit level applied to applicable containers. It seems likely that often in these cases other people will collect the containers and redeem the deposit on them. Removing these containers from the litter stream in public open spaces, streets and retail and commercial areas will reduce litter in WA.

There are a number of social benefits associated with a reduction in container litter, in particular broken glass containers. Broken glass litter on suburban streets has been identified as a significant health problem.[35] A study conducted in Boston, Massachusetts, found that glass related lacerations among urban children fell dramatically after the enactment of legislation requiring deposits on beverage containers. Broken bottles were implicated in the majority of cases that cited a specific outdoor injury source.[36]

Independent research elsewhere indicates improvements in litter abatement in jurisdictions with CDS (Nova Scotia).[37] The primary focus of the South Australian container deposit legislation was to manage beverage container litter. Data from Keep Australia Beautiful indicates that while beverage containers make up around 50% of all litter in WA by volume[38], in South Australia beverage container litter is less than 20% of litter by volume[39] (Figure 4). The SAG therefore considers it reasonable to expect that litter reduction will also be a primary outcome of WA's CDS.

[34] Department of Environment (2006), Litter Prevention Strategy for WA 2006-09. Online: <http://portal.environment.wa.gov.au/pls/portal/url/page/kab>.

[35] Injury Prevention (1998), *Reported incidence of injuries caused by street glass among urban children in Philadelphia*.

[36] American Journal of Public Health (Oct, 1986), 'The Impact of 'Bottle Bill' Legislation on the Incidence of Lacerations in Childhood'.

[37] Solid Waste & Recycling (FE/March 1999), 'A Penny for your Cotts: Beverage container management in Nova Scotia'. Online: <http://www.globalgreen.org/bear/Links/link%20attachments/Candian%20Reports/SWR-NS.pdf>.

[38] McGregor Tan Research (2006), *National Litter Index WA*. Online: <http://www.kab.org.au/_dbase_upl/0506%20NAT%201.pdf>.

[39] McGregor Tan Research (2006), *National Litter Index WA*. Online: <http://www.kab.org.au/_dbase_upl/0506%20NAT%201.pdf>.

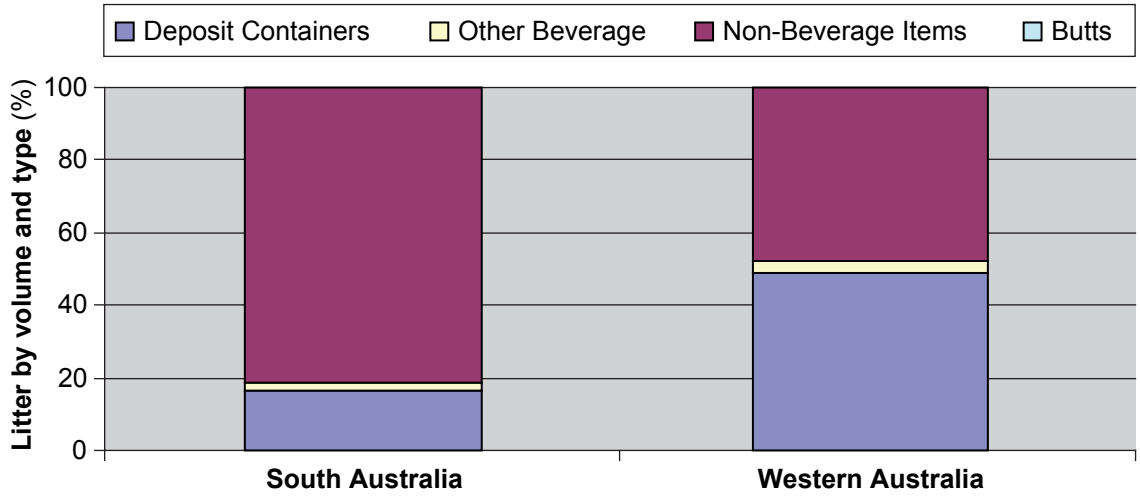

Figure 4: Comparison of Litter by Volume and Type for SA and WA.

Expected Outcome:

The SAG expects Best Practice WA CDS to:

Reduce litter in WA.

3.9. Opportunities for the Recovery of Other Materials

The SAG expects that collection depots established as part of the implementation of CDS in WA should provide the community with convenient drop-off points for EPR schemes currently operating, such as Drum Muster, or schemes established in the future. The WA State Sustainability Strategy identifies EPR schemes as a key mechanism for making producers and consumers more responsible for the life cycle of products and services they use or produce.[40] Container deposit systems are an example of EPR that focuses on packaging, although some of the collection infrastructure for CDS could be readily used in the rollout of EPR schemes for other products such as, but not limited to, computers and other electronic waste and lead cell batteries.

A number of collection depots operating under the container deposit legislation in South Australia act as drop-off points for other recyclable materials such as ferrous and non-ferrous scrap metals and car batteries.[41] The SAG saw a number of these collection depots first hand during their visit to South Australia in June 2006.

[40] Government of WA (2003), *State Sustainability Strategy* (p199).
[41] Recyclers of SA website: <http://www.recyclesa.com.au/tonnages.htm>.

In British Columbia, Canada, the milk industry has established a voluntary milk bottle recycling programme that uses the existing CDS collection infrastructure despite there being no deposit on milk containers.[42] A similar industry run product stewardship program for milk containers operates in Saskatchewan.[43] In Nova Scotia the Enviro-Depots, independent businesses licensed to accept container deposit beverage containers, are drop-off points for leftover paint as part of Nova Scotia's paint recycling program.[44]

As effective recycling of other materials has advantages, it is important to note that some research estimates that the introduction of one type of CDS to WA could create an additional 150 recycling centres across the State.[45]

Expected Outcome:

The SAG expects Best Practice WA CDS to:

Provide new opportunities for the recovery of materials other than applicable deposit containers. By providing convenient drop off locations for a variety of waste products for which EPR schemes may be established, such as batteries, computers etc.

3.10. Development of a National Scheme

The SAG has noted that there has been significant interest in the WA investigation into best practice CDS from other Australian jurisdictions.

Tasmania has recently conducted a Parliamentary Inquiry into CDS that was assisted by information provided by the WA DEC. In its final report, the Parliamentary Inquiry has recommended to the Tasmanian Parliament that CDS be adopted in Tasmania subject to its viability and effectiveness being supported by a cost/benefit analysis.[46] The Victorian State Liberal Party has also announced an election commitment to enact container deposit legislation in that State.[47]

Just as the investigation into CDS in WA has attracted interest from other jurisdictions, it is anticipated that the adoption of CDS in WA could act as a catalyst for other Australian States and Territories to also adopt CDS.

As with many EPR policy instruments, it would not be advantageous to have a situation where a number of different CDS were operating in different Australian States. This would increase the compliance burden and costs for the beverage and packaging industries.

A better outcome, from the perspective of the SAG, would be that a single national CDS is implemented. This position is also supported by the Government of South Australia.

[42] Encorp Pacific (Canada) Recycling systems. Online: <http://www.encorpinc.com/cfm/index.cfm?lt=907&ld=49>.
[43] Saskatchewan Association of Rehabilitation Centres. Online: <http://www.sarcsarcan.ca/sarcan/milk_recycling.php>.
[44] RRFB Nova Scotia. Online: <http://www.rrfb.com/pages/programs/about%20the%20envirodepot.cfm>.
[45] West D. (2006) *Container Deposits – The Common Sense Approach. Boomerang Alliance* (Online:<http://www.boomerangalliance.org/000_files/Final_Container_Deposits___the_common_sense_approach.pdf>).
[46] Parliament of Tasmania (2006) Joint Standing Committee, Environment, Resources and Development, *Waste Management in Tasmania*.
[47] Liberal Victoria (2006) *A Liberal government Plan for a Sustainable Future*. The Liberal Party's Policy and Plans for Victoria for the 2006 State Election. Online: <http:// www.vic.liberal.org.au>.

Expected Outcome:

The SAG expects Best Practice WA CDS to:

Support the introduction of a national CDS.

3.11. Continuous Improvement

For CDS in WA to be considered best practice, the SAG believes they must adopt an ethos of continuous improvement, and be responsive to changes in consumption, technology, economic factors, and community and stakeholder expectations. Hence, elsewhere in this report, the SAG has recommended that CDS in WA be enforced by regulation, which is more adaptable for change than legislation.

There are a number of examples of CDS in other jurisdictions that have been adapted to improve system performance, increase container recovery rates and include a broader range of containers. The Californian system expanded its range of applicable containers in 2000 and has also increased the deposit amount on containers a number of times.[48] In 2003 the South Australian EPA expanded the types of applicable containers under its container deposit legislation, following 5 years of review and consultation with industry, and the failure of an industry-led litter reduction program (for non-applicable containers) to meet its target.[49]

Examples exist in other jurisdictions where improvement appears to be hindered by difficulties associated with the change process, such as legal constraints and poor stakeholder cooperation. For example, sorting and processing containers only by material type and colour, and not also by brand, appears a logical efficiency improvement, yet sorting by brand continues. Elsewhere in this report, the SAG has recommended that different collection methods which suit local conditions be utilised to collect applicable deposit containers. This illustrates how WA CDS can be flexible and responsive to changing circumstances. As the State's demographics change, CDS collection infrastructure can adapt and meet new requirements, expectations and demands.

Existing technologies, such as RVMs and variations on them such as the Automated Recycling Centres (ARCs) used by TESCO supermarkets in the United Kingdom, can provide the flexibility to adapt quickly to changes in the types of applicable containers redeemable under CDS. The recyclable items accepted at ARCs in use at some TESCO stores include plastic margarine tubs, yoghurt pots, ready meal containers, glass jars, aluminium and steel cans, as well as plastic and glass bottles.[50]

Recommendation 2

The SAG recommends Best Practice WA CDS:

[48] Online: <http://www.consrv.ca.gov/DOR/Notices/AB3056FAQs.htm>.

[49] Environment Protection authority South Australia (2004), *Container Deposit Legislation (CDL) – A South Australian environmental success story*. Online: <http://www.epa.sa.gov.au/pdfs/info_cdl.pdf>.

[50] Online: <http://www.recycleandreward.co.uk/what.html>.

Are flexible and responsive and have the ability to improve over time, in response to changing circumstances. This may be achieved by sorting and processing applicable deposit containers by material type and colour (avoiding sorting to container brand), and through enabling the use of technology to assist with container handling.

3.12. Collection Systems and Infrastructure

The SAG has examined various operational CDS employing different methods and infrastructure for the collection of deposit containers and return of associated deposits. The SAG notes that the design of CDS collection system is a very significant determining factor in both the convenience of container return and the overall operating cost of the system. Therefore collection system design can have a very significant effect on overall CDS performance.

CDS collection systems can broadly be classified according to the following three types:

- Return to point of sale, where containers are returned either to the place of purchase or to another retail outlet;
- Depot systems, involving depot operators acting on behalf of manufacturers or retailers to collect containers; or
- Automated systems involving the use of RVMs to collect containers.

In all these instances, there are options for deposit refunds to be made in cash (most common), or credit value certificates to be issued for the refunds that can be redeemed for cash or towards purchases.

In reality, many CDS combine elements of these collection systems. The Californian collection system, for example, employs RVMs located at or near to the point of sale. In South Australia, the primary collection system is a network of depots, but in regional locations with small populations, some remote area retailers act as container collection depots.The SAG also notes that within WA there exists a large variation in geographic, socioeconomic and cultural circumstances that must be taken into account in the design of collection systems for CDS. As such, it is unlikely that a 'one size fits all' approach will provide the most successful model.

The SAG notes that collection systems involving mandatory requirement for point of sale container return is unlikely to be the most cost effective. In addition, a number of occupational health and safety issues arise from retail outlets handling returned containers.

The SAG recognises that point of sale return can provide a viable collection mechanism in some limited circumstances, such as in remote locations where a single retail outlet provides a diverse number of commercial and community services. An example of this situation may be remote roadhouses or stores servicing remote communities. In these examples, single purpose collection infrastructure is unlikely to be economically viable, but the collection of returned containers may provide a useful additional income stream to diversify the economic base of existing retail outlets.

Information has been provided to the SAG regarding the use of RVMs as part of an overall collection system. It is noted that the use of RVM's in CDS collection systems can provide for

a number of benefits and opportunities, including:

- Handling efficiency and reduced cost of container handling, thereby reducing the overall economic impact of CDS;
- High visibility and convenience, thereby increasing the likelihood of environmentally responsible behaviour and consumer satisfaction;
- Accurate, auditable data on the type and number of container returns through the use of bar-code data, thereby supporting a transparent system of accounting for container movements and deposit payments; and
- Incidental benefits associated with the co-location of RVMs with retail outlets and / or the promotion of certain retail outlets through incentive mechanisms such as the provision of credit value certificates upon container redemption via RVMs.

The Minister for the Environment has referred information to the SAG that has been received from a potential provider of RVM's for WA CDS.[51] This private enterprise has advised that the use of RVMs could support CDS with 'zero net system cost' or even underpin CDS that results in a 'system surplus'. The firm has also advised that it is part of a consortium that is prepared to invest $50 million 'in the installation and operation of a network of automated collection centres as the backbone of a new deposit system'.

The SAG notes that RVMs may not be suitable in all applications due to a number of factors including the risk of vandalism and the requirement for a minimum volume of throughput to offset high initial capital outlay. It is also noted that the extensive use of RVMs in a collection system may need to be supported by regulatory and/or planning requirements for major retail outlets to be located within a set distance from RVM facilities as is the case in the Californian CDS. While RVMs may provide a useful mechanism for collecting used containers from consumers, they are not considered a 'stand alone system', and as such, would need to be supported by larger collection depots (or a single very large collector) where materials would be aggregated for sale to market. One such arrangement presented to the SAG is a 'hub and spoke' model where a network of RVMs would be serviced by central collection points.[52] The central collection points in this model would also serve as 'drive-through' collection centres for other recyclable materials or waste products such as computers, for which EPR schemes may be established.

Noting the variation in cultural, socioeconomic and geographic circumstances in WA, the SAG recommends WA CDS utilise different methods to collect deposit containers to suit local conditions. This would avoid mandatory return to point of sale and enable the use of RVMs where appropriate.

[51] Revive Recycling, Letter to Hon. Mark McGowan MLA, 29 September 2006.

[52] West D. (2006) *Container Deposits – The Common Sense Approach. Boomerang Alliance* (Online:<http://www.boomerangalliance.org/000_files/Final_Container_Deposits___the_common_sense_approach.pdf>).

Recommendation 3

The SAG recommends Best Practice WA CDS to:

Utilise different methods to collect applicable deposit containers to suit local conditions. This would avoid mandatory return to point of sale.

3.13. Existing Local Waste Management and Reprocessing Industries

The SAG acknowledges that in the Perth metropolitan area and most of the larger regional centres, there already exists a network of facilities which may be readily adapted for use as redemption centres for CDS applicable containers. It therefore recommends that in the first instance, those existing operators, both local government and the private sector, be seriously considered for the opportunity to provide a collection depot and redemption service at existing Materials Recovery Facilities, Transfer Stations and landfill sites, and any other existing, or planned, facility where such a service may be suitable.

The SAG further expects that private businesses such as scrap metal merchants, recyclers and recycled material reprocessors might establish collection depots at their premises and that they should also be considered for the opportunity to do so. CDS would provide the operators of these businesses with an additional income stream to their existing business.

The SAG recommends that following this invitation to nominate facilities as collection centres, any gaps in redemption centre provision be identified prior to calling for tenders or offering the opportunity for other organisations to offer redemption and depot services, with tenders seeking information on the range of material to be collected beyond CDS applicable containers.

The SAG notes that many rural landfills are unmanned. The Group considers that CDS will provide the opportunity for many rural communities to establish depots at landfill sites that may be staffed at specific times. This will:

- Increase the capacity of rural communities to more effectively manage waste disposed to landfill by providing at least a part time manned landfill facility;
- Provide for reasonably convenient drop off points in rural communities;
- Enable rural local government to participate in CDS;
- Provide for facilities which may also accept recyclable material for which a deposit does not apply, such as newsprint, steel products and e-waste; and
- Enable rural local government to offer a depot to community organisations as a fundraising activity.

Recommendation 4

The SAG recommends Best Practice WA CDS to:

Utilise existing local waste management and reprocessing industries.

3.14. The Range of Applicable Containers

After considering issues associated with CDS, the SAG recommends that the scope of applicable containers under WA CDS should aim towards a broad range of containers, as this is more consistent with the principles of increased resource recovery and sustainability, as described in local government policy positions.[53] WA CDS should ideally include the current range of applicable containers in South Australia, as well as allowing for additional container types, as is the case in several other jurisdictions (British Columbia, Alberta, Nova Scotia, and California). This recommendation is consistent with assisting integration between SA and WA CDS (as is stated in recommendation 13 of this report), while still moving forward, guided by the principle of improved resource recovery. Nevertheless, the container scope should be informed by independent economic analysis and consultation with key stakeholders.

The SAG believes the initial scope of applicable containers should be as broad as possible under best practice WA CDS. However, the Group acknowledges that expanding beyond the initial range of applicable containers through a phased approach, may strike an appropriate balance between CDS with the broadest possible range of applicable containers (while giving due consideration to other factors).

Several international jurisdictions which include most beverage containers except milk in their scope, also have strong product stewardship schemes for returning milk containers to the same collection network used for applicable deposit containers (and in some instances such as British Columbia, milk has a non-redeemable recycling fee attached to containers).[54] As such, non-deposit product types, can be recycled effectively in parallel to deposit containers using the same established infrastructure. This parallel recycling of deposit and non-deposit materials at collection facilities could be used to assist the phased incorporation of new applicable containers to WA CDS.

Furthermore, the use of new technology, such as RVMs, may provide an avenue to expand any scope for applicable deposit containers in WA, as a wider range of containers are effectively being managed using this system through TESCO's recycling centres in the United Kingdom.[55]

Future expansion of the range of applicable containers in WA would be subject to further analysis and consultation with all relevant stakeholders, including other Australian jurisdictions that currently have, or are considering implementing, CDS.

Recommendation 6

The SAG recommends Best Practice WA CDS:

> ***Include a broad range of containers.*** The scope of deposit containers in CDS should be chosen to optimise sustainability.

[53] See the WA Local Government Association Municipal Waste Advisory Council website Online: <http://www.wastenet.net.au/policy/statements/cdspolicystatement/file/at_download>.
[54] Encorp Pacific (Canada) Recycling systems. Online: <http://www.encorpinc.com/cfm/index.cfm?lt=907&ld=49>.
[55] See 'Recycle and Reward' web site. Online: <http://www.recycleandreward.co.uk/index.html>.

3.15. Accountability

The use of transparent, open and accountable mechanisms to govern and track the movement of financial flows and quantities of recycled materials was determined to be an important requirement of CDS for WA. CDS elsewhere that possess good mechanisms to track and audit material and financial flows are best placed to:

- Report the progress of CDS to the community and key stakeholders;
- Identify irregularities that require management or enforcement;
- Determine where adjustments to CDS are required;
- Correctly confirm any requirement for handling payments;
- Calculate the environmental, social and economic outcomes of CDS; and
- Conduct forward planning for implementing improvements to CDS or providing assistance to associated activities.

Whilst some CDS coordinated and administered by jurisdictions such as California have shown detailed data regarding resource recovery levels[56], some other schemes controlled by industry have also produced transparent data on material and deposit flows.[57] Hence, the SAG considers transparency and the ability to audit CDS is of more importance than the ownership of a system. The important requirement in the case of CDS controlled by industry is to have the appropriate legal mechanisms in place to ensure transparency and openness.

Recommendation 7

The SAG recommends Best Practice WA CDS to:

Provide transparent, open and accountable mechanisms to govern and track the movement of deposit monies and quantities of recycled materials.

3.16. Convenience and Education

The SAG is of the belief that WA CDS that are convenient and easy to use will encourage community participation and therefore drive behavioural change. As mentioned elsewhere in this report, the Group believes that a strong focus on education and awareness raising amongst the community of the aims and benefits of CDS, is an essential part of the implementation of a system in WA. This raising of community awareness and promotion of environmentally responsible behaviour has been demonstrated very effectively in the social marketing and education campaigns conducted by the Californian Department of Conservation associated with the Californian CDS, which can be seen on their website <www.bottlesandcans.com>.

[56] Department of Conservation, California (2005), *Biannual Report of Beverage Container Sales, Returns, Redemption & Recycling Rates*. Online: <http://www.consrv.ca.gov/DOR/Notices/Images/BiAnnual/1105.pdf>.

[57] Solid Waste & Recycling (Oct/Nov 1999), *Alberta's Deposit-Refund System: 80% container recovery @ 0.8 cents per unit sold*. Online: <http://www.globalgreen.org/bear/Links/link%20attachments/Canadian%20Reports/SWR_Alberta.pdf>.

Community education could focus on the ability of CDS to help reduce litter in WA, the environmental benefits of recycling material as opposed to utilising virgin material, the reduction in energy consumption, and therefore greenhouse gas emissions associated with reprocessing recycled material, water savings, and the benefits of community participation in CDS.

The SAG is of the opinion that a CDS providing a number of redemption options to the community, which suit their different lifestyles, expectations and circumstances, will provide a level of convenience and ease that will encourage broad participation. It is for this reason that the Group has recommended elsewhere in this report that a range of redemption options including return to point of sale, collection depots and automated systems be available to provide the convenience the community require.

Furthermore, the retail sector would be able to value add into CDS in WA through employing additional incentives akin to discount vouchers (such as fuel vouchers) when consumers redeem containers. The TESCO supermarket chain in the United Kingdom uses a similar approach to encourage its customers to recycle bottles, cans and tins at ARCs at several of its stores.[58] The ARCs also collect used shopping bags, paper and cardboard.

Recommendation 8

The SAG recommends Best Practice WA CDS:

Be straight forward and convenient to use while providing public education and other methods to encourage participation.

3.17. Fees

As the SAG has proceeded through its investigation, the members have appreciated the importance of building into WA CDS the capacity for continuity and financial viability, while giving consideration to a low cost design. In effect, this means a balance must be struck between robustness and leanness in designing CDS for WA.

Several factors can impact this balance point. One of the more important of these factors is adequate revenue to pay for the operation of CDS, especially with regard to the payment for handling of redeemed containers (irrespective of whether CDS are coordinated by industry, by a non-government non-profit body, or by government).

Most CDS utilise both the value of the recycled material and unredeemed deposits to assist with operational expenses. However, many CDS also have additional fees to assist with the handling expenses that are directly associated with the recovery of the resources. In Alberta, Canada, a Container Recycling Fee is utilised. On its website, the Alberta Beverage Container Recycling Corporation (ABCRC) aptly describes the issue of funding resource recovery when it states:

[58] Online: <http://www.recycleandreward.co.uk/index.html>.

'the Container Recycling Fee is the net cost of recycling each type of container. Since different containers cost different amounts to recycle, the fee is also different.' … 'The money collected from the Container Recycling Fee, plus the money from the sale of commodities, and any money from unclaimed (unredeemed) deposits, is used to pay for the collection, handling, transportation and processing of the containers.'[59]

Similarly, in British Columbia the industry-based management organisation Encorp Pacific indicates on its website that:

'The commodity value and unredeemed deposits, in some cases, only cover part of the cost' … of recycling containers. Where this is the case … 'the Container Recycling Fee covers the rest of the cost.'[60]

In comparison to other CDS in North America, the system in California utilises a different approach to the task of recovering the resources bound within the applicable containers.[61] However, each of these CDS seems to maintain an important underlying principle, that it must be able to cover the costs of recovering the resources by paying for the handling of redeemed containers.

Certain nations in Europe impose taxation to achieve improved resource recovery of applicable containers. Norway imposes taxes on applicable non-refillable containers. These taxes decrease with increases in container recovery.[62] The system in Finland is similar, with additional conditions, such as the container must carry a deposit, the collected material is recycled, and requirements exist for adequate coverage and reporting.[63]

Other jurisdictions use non-economic means to improve the recyclability of containers. In South Australia the container deposit legislation empowers government to refuse the sale of products packaged in inappropriate containers, based on how difficult it is to recycle the specific container type.[64]

After researching the various CDS elsewhere, the SAG determined that an important factor to consider when thinking about effective material recovery is the recyclability of specific types of containers or container materials. Where a container is difficult to recycle or made of a material that is problematic with regard to the economics of recycling, then some mechanism is required to deal with this problem.

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[59] See 'About the Recycling Fee' published by Alberta Beverage Container Recycling Corporation. Online: <http://www.abcrc.com/cfm/index.cfm?It=913&Id=1&Se=21>.

[60] See 'About the Recycling Fee' published by Encorp Pacific Online: <http://www.encorpinc.com/cfm/index.cfm?It=913&Id=1&Se=21>.

[61] See 'California Code of Regulations, Title 14. Natural Resources, Division 2. Department of Conservation, Chapter 5. Division of Recycling' published by Department of Conservation, California. Online: <http://www.consrv.ca.gov/DOR/crcp/recyclers/Images/Regs.pdf>.

[62] See 'Norway' published by Container Recycling Institute. Online: <http://www.bottlebill.org/legislation/world/norway.htm>.

[63] See 'Finland' published by the Container Recycling Institute. Online: <http://www.bottlebill.org/legislation/world/finland.htm>.

[64] Environmental Protection Authority South Australia (1995), *Environmental Protection (Beverage Container) Regulations 1995*. Online: <http://www.legislation.sa.gov.au/LZ/C/R/ENVIRONMENT%20PROTECTION%20(BEVERAGE%20CONTAINER)%20REGULATIONS%201995/CURRENT/1995.41.UN.PDF>.

The SAG determined that, apart from the redeemable container deposit value attached to any applicable container, there is a requirement for a separate variable resource recovery fee that is non-redeemable, and that is only invoked when resource recovery of specific containers is uneconomic.

This feature protects CDS from being undermined by:

- Poorly designed containers, which are hard to recycle;
- Large fluctuations in the price of various recycled materials;
- The use of packaging materials that are problematic with regard to the economics of recycling; and
- Other factors which may affect the financial viability of CDS.

Recommendation 9

The SAG recommends Best Practice WA CDS to:

Provide for a container deposit and a separate variable resource recovery fee, the latter only to be invoked when resource recovery of specific containers is uneconomic.

3.18. Regulation and Enforcement

Elsewhere in this report, the SAG has recommended that CDS in WA be administered by an Independent Body with a Board that has representation from stakeholders (Recommendation 11 & 12). The Group further recommends that any CDS implemented in WA be enforced by the State Government through regulation. The SAG believes that regulation should as a minimum cover key features of CDS and include: the deposit amount on applicable containers; the scope of containers that are applicable under the system; the licensing of collection and processing facilities; compliance; labelling for applicable containers; and fines associated with breaches or non-compliance.

The SAG considers regulation to be the best option for enforcing CDS, as it would also give a greater degree of flexibility than most other legal mechanisms. It is generally easier and less time consuming to change regulation than it is through certain other approaches such as making amendments to legislation.

However, the Group considers enforcement of compliance and issuing of fines should be the task of government, rather than the function of the Independent Body, as this is consistent with other enforcement systems in WA. Nevertheless, the Independent Body may become involved in identification and communication of possible breaches of regulation to support the effective functioning of CDS.

Recommendation 10

The SAG recommends Best Practice WA CDS:

Are enforced by government through regulation covering at least the following features – deposit amount, container scope, licensing conditions, fines and compliance.

3.19. Administration

As the administration and management of CDS may have significant effects across the whole of WA, and for a variety of stakeholders, the SAG is of the opinion that an independent body would provide an appropriate pathway for effectively addressing these considerations.

The SAG made an assessment of what it considered to be the requirements for a governing Board for this body, and determined that the Board should comprise a broad cross section of relevant knowledge and skills associated with:

- Producers (packaging; food and beverage)
- Resource recovery, waste management, recycling and logistics
- Local Government
- Consumers and litter management
- State Government.

The Board, notwithstanding the above requirements for the relevant knowledge and skills, will also require a suitable capacity for financial, operational and marketing understanding within its membership. The Board will have the option to seek expertise from outside its membership, if required.

Recommendation 11

The SAG recommends Best Practice WA CDS:

Will be administered by an Independent Body which is governed by a Board which is representative of stakeholders and must include members with knowledge and skills in the following areas –

- ***Producers (packaging; food and beverage)***
- ***Resource recovery, waste management, recycling and logistics***
- ***Local government***
- ***Consumers and litter management***
- ***State government.***

From its investigations and assessment of the structure and operation of CDS in other jurisdictions, the SAG expects the functions of the independent body to generally support the operation of CDS and specifically cover: the administration of monies associated with the scheme; auditing of financial and material flows; promotion and education with regard to the scheme; provision of assistance for research and innovation into recycling and reprocessing of applicable containers; consultation and advice to stakeholders and government; and license requirements for operations.

Recommendation 12

The SAG recommends Best Practice WA CDS:

Will be administered by an Independent Body with functions, such that it:

- ***Manages the fund***
- ***Audits the data***
- ***Determines licence requirements***
- ***Liaises and consults with stakeholders***
- ***Promotes research and innovation***
- ***Promotes the scheme***
- ***Provides advice to government on matters that include container eligibility and fee level***
- ***Generally supports the operation of the scheme***
- ***Seeks expert advice as required.***

3.20. Unredeemed Deposits Fund

The SAG has determined that monies generated from the unredeemed deposits of applicable containers under WA CDS should be set aside in a dedicated fund. It is the Group's intention that this fund be used by the Independent Body to undertake its various functions, which are outlined elsewhere in this report (see Recommendation 12).

The Group notes that the total value of monies generated from unredeemed deposits varies according to the deposit value, redemption rates, and the number of applicable containers within a system. However, jurisdictions with redemption rates of around 80% have in some instances generated monies in the millions of dollars from unredeemed deposits.[65]

Furthermore, the SAG notes that using monies from unredeemed deposits to fund activities that support the function of CDS occurs in jurisdictions elsewhere.[66] The Group considers the use of unredeemed deposits to fund the operation of CDS to be consistent with the polluter pays principle, which is a fundamental component of EPR schemes, and occurs in the system in use in Nova Scotia, Canada[67].

The SAG has provided a general recommendation in regard to the use of unredeemed deposits to assist the functions of the Independent Body governing WA CDS, and recommends that it would be more appropriate for those with legal and legislative expertise to address the matter in more depth at a later date.

[65] Solid Waste & Recycling (Oct/Nov 1999), *Alberta's Deposit-Refund System: Eighty per cent container recovery at 0.8 cents per unit sold*. Online: <http://www.globalgreen.org/bear/Links/link%20attachments/Canadian%20Reports/SWR_Alberta.pdf>.

[66] Solid Waste & Recycling (Dec/Jan 1999), *Saskatchewan's Beverage Container Management*. Online: <http://www.globalgreen.org/bear/Links/link%20attachments/Canadian%20Reports/SWR_SASK.pdf>.

[67] Solid Waste & Recycling (FE/March 1999), *A Penny for your Cotts: Beverage container management in Nova Scotia*. Online: <http://www.globalgreen.org/bear/Links/link%20attachments/Candian%20Reports/SWR-NS.pdf>.

Recommendation 13

The SAG recommends Best Practice WA CDS:

Require a fund from unredeemed deposits to be established to assist the Independent Body in achieving its functions.

3.21. Integration with Other Australian Jurisdictions

The SAG recognises the opportunities and necessity for WA CDS to be sufficiently flexible to integrate in key areas with the existing container deposit legislation in South Australia and any future CDS established in other Australian jurisdictions or at a Federal level. Features that the Group has identified as instrumental to successful integration with the South Australian system (and future CDS in other jurisdictions) include:

- Labelling on containers should be the same. The same wording and logo for the container refund marking, to certify the authenticity of eligible containers, would minimise inconvenience for manufacturers and allow future CDS in other jurisdictions to adopt the labelling;
- The deposit amount should be the same. This will eliminate confusion for consumers redeeming containers in other jurisdictions, provide manufacturers with consistency and confidence to operate across systems, and reduce the ability for inter-jurisdictional rorts to take place; and
- Similar applicable containers. WA is considering a broader range of refundable containers than is currently prescribed in South Australia. While not a critical factor (as the approved labelling could accommodate the differences in prescribed containers), it would nonetheless be desirable for the range of containers to be as similar as possible to assist integration across CDS.

While there are currently factors in the South Australian legislation that could limit any proposed WA CDS ability to integrate with the South Australian CDS, the South Australian Government has acknowledged WA's work on the investigation of CDS for WA, and has stated that it will continue to observe WA's progress. South Australia's Minister for the Environment has invited comment on the adequacy of their refund amount, thereby presenting us with an opportunity to engage in discussion on mutually acceptable refund arrangements.

Recommendation 14

The SAG recommends Best Practice WA CDS:

Where practicable, to integrate with the South Australian CDS and be sufficiently flexible to integrate with future CDS in other jurisdictions. Integration should specifically address deposit amount and labelling.

3.22. Deposit Fee

The SAG believes that WA CDS should include a deposit fee of 10 or 20 cents per applicable container. The SAG has not been able to make a definitive recommendation on the optimal deposit level but has recommended elsewhere in this report (see Recommendation 14) that a full independent economic analysis be undertaken to determine the most appropriate deposit level for CDS in WA.

Overseas studies have examined the relationship between the deposit amount and the redemption level of containers, and have found that a higher deposit fee increases the number of applicable containers redeemed.[68] The Californian system was implemented in 1987 with a 2 cent deposit on beverage containers less than 24 oz and 4 cents on beverage containers 24 oz and greater. This was increased to 4 cents and 8 cents respectively in 2004, and the California Department of Conservation has been authorised to increase the refund amount to 5 and 10 cents respectively, as of the 1 January 2007, to encourage greater participation in recycling.[69]

When the South Australian CDS was introduced in 1975, the 5 cent deposit on beverage containers was a strong incentive to redeem containers because it equated to over 20 cents per container in today's monetary value.[70] In the intervening years the relative value of the 5 cent deposit has decreased as the purchase price for beverages has increased. South Australia is currently contemplating an increase of the deposit amount to 10 or 20 cents to increase its incentive value and ensure more containers are recycled.[71] Previous research has indicated that a significant increase in recovery rates results from increasing deposit refund values from 5 to 10 cents.[72]

The deposit fee will have an effect on industry acceptability of CDS and the extent to which WA CDS will integrate with the current South Australian CDS. The deposit fee should not be determined without consultation with key stakeholders, including, but not limited to, the South Australian Environment Protection Authority and relevant industry stakeholders. 15 cents was rejected by the SAG, as a single redemption would involve 2 coins.

Recommendation 15

The SAG recommends Best Practice WA CDS:

Have a container deposit fee set at either 10 cents or 20 cents.

[68] Beverage Container Management Board (2003), *Evaluating the Relationships Between Refund Values and Beverage Container Recovery*. Online: <http://bottlebill.org/assets/pdf/geography/deposit%20levels.pdf>.

[69] Online: <http://www.consrv.ca.gov/DOR/Notices/AB3056FAQs.htm>.

[70] Parliament of South Australia, Hansard (16 Nov, 2006), *Container Deposit Legislation*. Online: <http://www2.parliament.sa.gov.au/dbsearch/display.asp?CALLER=ha-hansard.asp&IS_QUERY={phrase}Such%20container%20deposit{/phrase}&IS_PAGE_SIZE=20&SEARCH_PAGE=hansard_search.asp&DOC_INDEX=1&HIGHLIGHT_HITS=True>.

[71] Environment Protection Authority of South Australia (2006), *Time to Increase Deposit on Drink Containers*. Online: <http://www.epa.sa.gov.au/media_releases.html>.

[72] Beverage Container Management Board (2003), *Evaluating the Relationships Between Refund Values and Beverage Container Recovery*. Online: <http://bottlebill.org/assets/pdf/geography/deposit%20levels.pdf>.

3.23. Economic Analysis

The SAG has identified a number of potential economic impacts of introducing CDS in WA. The extent and nature of these impacts are substantially determined by various elements of CDS design.

It is considered essential by the SAG that a full economic analysis be undertaken to determine the effects and benefits of implementing CDS in WA. The economic analysis is considered vital to answer key questions relating to CDS design. The SAG has not been able to make definitive recommendations in a number of significant areas, as it has not been equipped to undertake the necessary economic modelling.

Examples of key questions are the optimal deposit level and therefore the expected level of market effects that may result from placing deposits on some consumable products (primarily beverages) and not others. To answer these questions it is necessary to undertake economic analysis and determine features, such as the elasticity of relevant markets.

Wider questions, such as the anticipated benefit to WA from attracting secondary material reprocessing facilities as a result of high volumes of uncontaminated recyclate materials, will also need to be informed by economic analysis.

Significantly, the SAG agreed that any economic analysis should not be constrained to economic impacts alone. It must be undertaken with consideration of economic, social and environmental impacts, taking into account the full lifecycle impacts of applicable deposit containers. This is particularly significant for an initiative such as CDS, where the intention of its introduction is to reduce impact to the environment that is not presently accounted for.

The SAG has also recommended that WA CDS should act to transfer costs associated with the management of applicable container waste away from local government and the general community and towards producers and consumers, in accordance with the polluter pays principle.

It is important that any economic analysis recognises the general principle that this internalisation of existing costs (which are not presently accounted for) will enable the market to operate more efficiently by correcting a market failure that currently exists. Therefore, as noted elsewhere, it is an expectation of the SAG that the overall costs of managing applicable container waste will be reduced as a result of internalising costs into a production system where those costs have not previously been borne by producers and consumers.

Recommendation 16

The SAG recommends Best Practice WA CDS to:

Require that the government undertake a full independent economic analysis with triple bottom line analysis of these recommendations and expected outcomes.

4. CONCLUSION

During the course of its investigation, the SAG received a considerable amount of information, as well as being presented with a range of stakeholder perspectives, all of which enriched the Group's understanding of the potential issues and the possible benefits of CDS for WA. Prior to any recommendations being considered, the Group wanted to gain a fuller sense of what features and elements of CDS create best practice, and it believes it has achieved this aim.

The Group considers that its recommendations represent a best practice approach to CDS for WA. These recommendations are presented below. Along with these recommendations, the Group expects best practice CDS will produce a series of beneficial outcomes, and these outcomes are presented below.

The Stakeholder Advisory Group recommends Best Practice WA CDS to:

1) ***Shift more of the burden of waste and litter management to the producers and consumers responsible for container wastes.*** This is in accord with the principles of polluter pays, EPR and Product Stewardship.

2) ***Are flexible and responsive and have the ability to improve over time, in response to changing circumstances.*** This may be achieved by sorting and processing applicable deposit containers by material type and colour (avoiding sorting to container brand), and through enabling the use of technology to assist with container handling.

3) ***Utilise different methods to collect applicable deposit containers to suit local conditions.*** This would avoid mandatory return to point of sale.

4) ***Utilise existing local waste management and reprocessing industries.***

5) ***Support regional areas through active mechanisms to create cost parity between metro and non-metro locations with regard to logistics such as transport.*** Other strategies may include subsidies, grants or loans.

6) **Include a broad range of containers.** The scope of deposit containers in CDS should be chosen to optimise sustainability.

7) ***Provide transparent, open and accountable mechanisms to govern and track the movement of deposit monies and quantities of recycled materials.***

8) ***Be straight forward and convenient to use while providing public education and other methods to encourage participation.***

9) ***Provide for a container deposit and a separate variable resource recovery fee, the latter only to be invoked when resource recovery of specific containers is uneconomic.***

10) ***Are enforced by government through regulation covering at least the following features*** – deposit amount, container scope, licensing conditions, fines and compliance.

11) ***Will be administered by an Independent Body which is governed by a Board which is representative of stakeholders and must include members with knowledge and skills in the following areas –***

- ***Producers (packaging; food and beverage)***
- ***Resource recovery, waste management, recycling and logistics***
- ***Local government***
- ***Consumers and litter management***
- ***State government.***

12) ***Will be administered by an Independent Body with functions, such that it:***

- ***Manages the fund***
- ***Audits the data***
- ***Determines licence requirements***
- ***Liaises and consults with stakeholders***
- ***Promotes research and innovation***
- ***Promotes the scheme***
- ***Provides advice to government on matters that include container eligibility and fee level***
- ***Generally supports the operation of the scheme***
- ***Seeks expert advice as required.***

13) ***Require a fund from unredeemed deposits to be established to assist the Independent Body in achieving its functions.***

14) ***Where practicable, integrate with the South Australian CDS and be sufficiently flexible to integrate with future CDS in other jurisdictions. Integration should specifically address deposit amount and labelling.***

15) ***Have a container deposit fee set at either 10 cents or 20 cents.***

16) ***Require that the government undertake a full independent economic analysis with triple bottom line analysis of these recommendations and expected outcomes.***

Additionally, the Stakeholder Advisory Group expects Best Practice WA CDS will:

1) ***Improve the ability of WA to move towards a more sustainable future.*** In particular, by providing improved resource efficiency and increased economic opportunities as outlined in the WA State Sustainability Strategy.

2) ***At least double the rate of recovery for applicable deposit containers in WA.***

3) ***Reduce overall cost to local government, the wider community and the environment.*** As producers and consumers are those that can affect changes in the recyclability and the recovery rate of containers, they are best placed to reduce the overall management cost. This is also achieved by removing problem materials from other waste and recycling streams.

4) ***Support and/or expand local waste management and reprocessing industries in WA.*** This can be supported by providing a steady stream of high volume uncontaminated materials for reprocessing, and through other incentives, such as government procurement policies incorporating recycled content.

5) ***Assist non-metropolitan participation in recycling activities.***

6) ***Promote improved packaging.*** This can be achieved by creating economic and other incentives for companies to improve the packaging they use.

7) ***Support community participation.***

8) ***Reduce litter in WA.***

9) ***Provide new opportunities for the recovery of materials other than applicable deposit containers.*** By providing convenient drop off locations for a variety of waste products for which EPR schemes may be established, such as batteries, computers etc.

10) ***Support the introduction of a national CDS.***

5. APPENDICES

APPENDIX 1
Supporting Information and References

Part (i): History and Current Operational Structures of the Container Deposit System in South Australia.

Part (ii): Australian Studies Potentially Relevant to Container Deposit Systems.

Part (iii): North American Studies potentially Relevant to Container Deposit Systems.

Part (iv): Matrix of Container Deposit Systems Operating Across Canada.

Part (v): Matrix of Container Deposit Systems Operating Across Europe.

Part (vi): Worksheet on Components, Elements and Outcomes of CDS used During a Planning Workshop.

Part (vii): Transcript from ABC radio 'Regional Drivetime' 31 October 2006.

Part (viii): Additional Information Reviewed by the Stakeholder Advisory Group.

Best Practice Container Deposit Systems for Western Australia

History and Current Operational Structure of the Container Deposit System in South Australia

A Briefing Paper

OVERVIEW

South Australia like other Australian states and other jurisdictions internationally had container deposit systems operating for cool drink bottles and some beer bottles prior to the instigation of the South Australian Container Deposit Legislation in 1977. The previous voluntary container deposit systems for refillable cool drink bottles and some beer bottles were useful, because beverage manufacturers costs were reduced by employing reusable bottles.

Initially the legislated Container Deposit System dealt with non-refillable soft drink and beer containers. Later the scheme extended to a wider range of beverage containers .

The structural parts of the Container Deposit System in South Australia include:

(1) Approx 110 drop-off centres where the public can deliver containers and receive refunds.
(2) Six Super Collection establishments that conduct the bulk handling of mechanically processed materials.
(3) Administration facilities attached to the beverage manufacturers for coordination and accounting purposes.

The materials handled by the Container Deposit System include various containers made from Aluminium (Al), Steel (Fe), Glass (G), Polyethylene terephthalate (PET), Liquid Paper Board (LPB), and high-density Polyethylene (HDPE). Not all containers circulating in the market place are covered by the System.

STAKEHOLDER ADVISORY GROUP BPCDSWA
Feb 2006

Introduction
In order to understand how a Container Deposit System (CDS) might operate in Western Australia various other systems require analysis. The only large scale system in operation in Australia to date has been the South Australian CDS. This briefing paper will focus on the South Australian system to determine:- what was operating in South Australia prior to the Legislation, the Legislation itself, changes to the Legislation, the structure of the present system and an indication of the material flows that the system handles.

Prior to Legislation
Prior to 1977 a non-legislated system was in place where consumers were charged a refundable deposit on the container (10 or 20 cents) in addition to normal retail price. The refundable deposit was only attached to several types of glass containers (primarily soft drinks and some alcoholic beverages). Most of the non-legislated container return systems continued to operate after 1977.

The Legislation
The Container Deposit Legislation (CDL), "The beverage Container Act 1975-76", came into force in August 1977 (DoE&PSA, 1983). The Act made it mandatory for a range of containers to be marked with the refund amount payable in South Australia and that a refund must be given at set collection locations when containers were returned.

The original container deposit system covered certain non-returnable glass aluminium and plastic beverage containers primarily for soft-drinks and beer. Major exceptions to containers covered in the original system were containers for wine, containers for straight spirit, all milk-based beverage containers and fruit juice containers. In addition, refillable beverage containers did not attract a legislated container deposit.

Changes to Legislation
The initial CDL was incorporated into the Environmental Protection Act in 1993. In 2003 the legislation was further expanded to capture a wider range of beverage containers.

The containers covered in the current system are shown below.

Beverage	Container Type	Size
Carbonated soft (non-alcoholic) drinks	All	Up to and including three litres
Non-carbonated soft (non-alcoholic) drinks	All	Up to and including three litres
Water (plain, still or carbonated)	All	Up to and including three litres
Pure fruit juice (>= 90% is fruit or vegetable juice or mixture)	All	Less than one litre
Flavoured milk	All	Less than one litre
Beers/ales/stout	All	Up to and including three litres
Wine based beverages (wine cooler and similar beverages)	All	Up to and including three litres
Spirit-based beverages	All	Up to and including three litres
Alcoholic beverages (derived from the fermentation of fruit)	All	Up to and including three litres

(**Source**: Zero Waste SA, accessed 2006)

The major container groups not covered in the current system are:- wine containers, containers of straight spirit, non-flavoured milk containers. Additionally, refillable beverage containers do not attract a legislated container deposit.

Structure of System

The physical handling aspects of the system involve several types of operating facilities. The structure of the system includes:

(1) Approximately 110 Collection Depots that accept containers from the public and credit the deposit amounts. These centres also sort containers for further processing.

(2) 6 Supercollectors that accept materials from the 110 collection centres providing some physical processing and large scale bulk handling.

(3) Manufacturers of beverage containers who produce containers and pay Supercollectors handling fees (some passed on to Collection Depots) and the container deposits (all passed on to consumers calculated on returns).

Figure 1 provides a visual indication of the structure and flows (material and financial) within the CDS in South Australia.

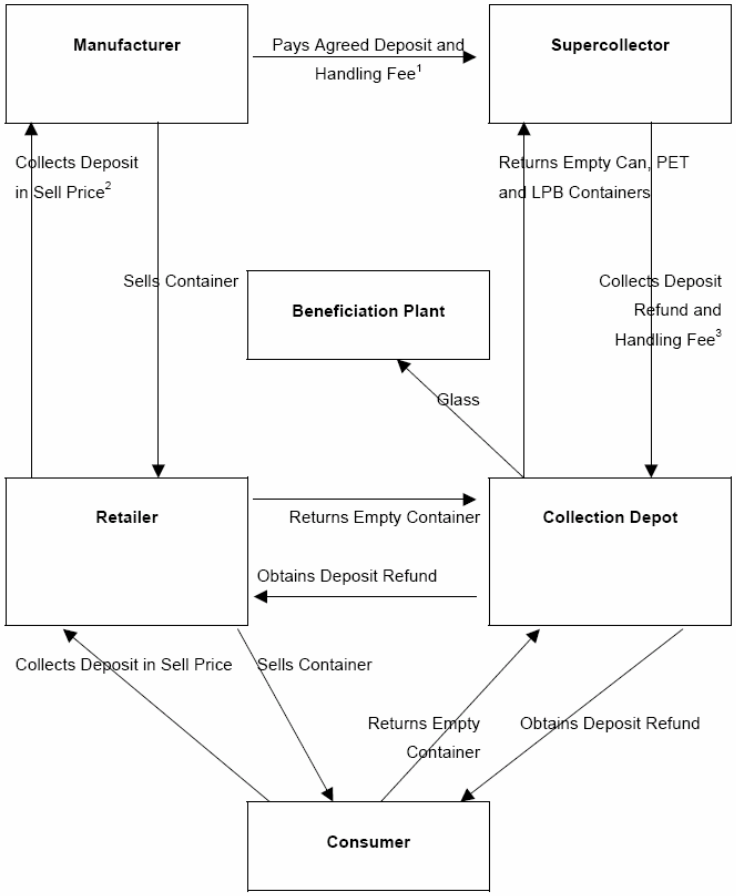

Figure 1: The structure and patterns of material and financial flows of CDS in SA.
(**Source**: Hudson Howells, 2005)

(**Notes**: [1] The rate is paid on 100% of declared sales and takes into account an estimated return rate and the costs and profit margin of the super-collector.)

(**Notes**: [2] Deposits around the cycle are 5 cents per container inclusive of GST ie: the net deposit is 4.545 cents per container.)

(**Notes**: [3] This handling fee is different to (1) and is a contracted figure between the super-collector and the collection depot)

Waste Generation Locations

Previous studies have investigated and characterised waste generation, kerb-side recycling and deposit container return by local government area (LGA). A map of the South Australian LGA's that have been recently investigated is shown in **Figure 2** (Waste Yields by LGA are also shown in **Figure 2**).

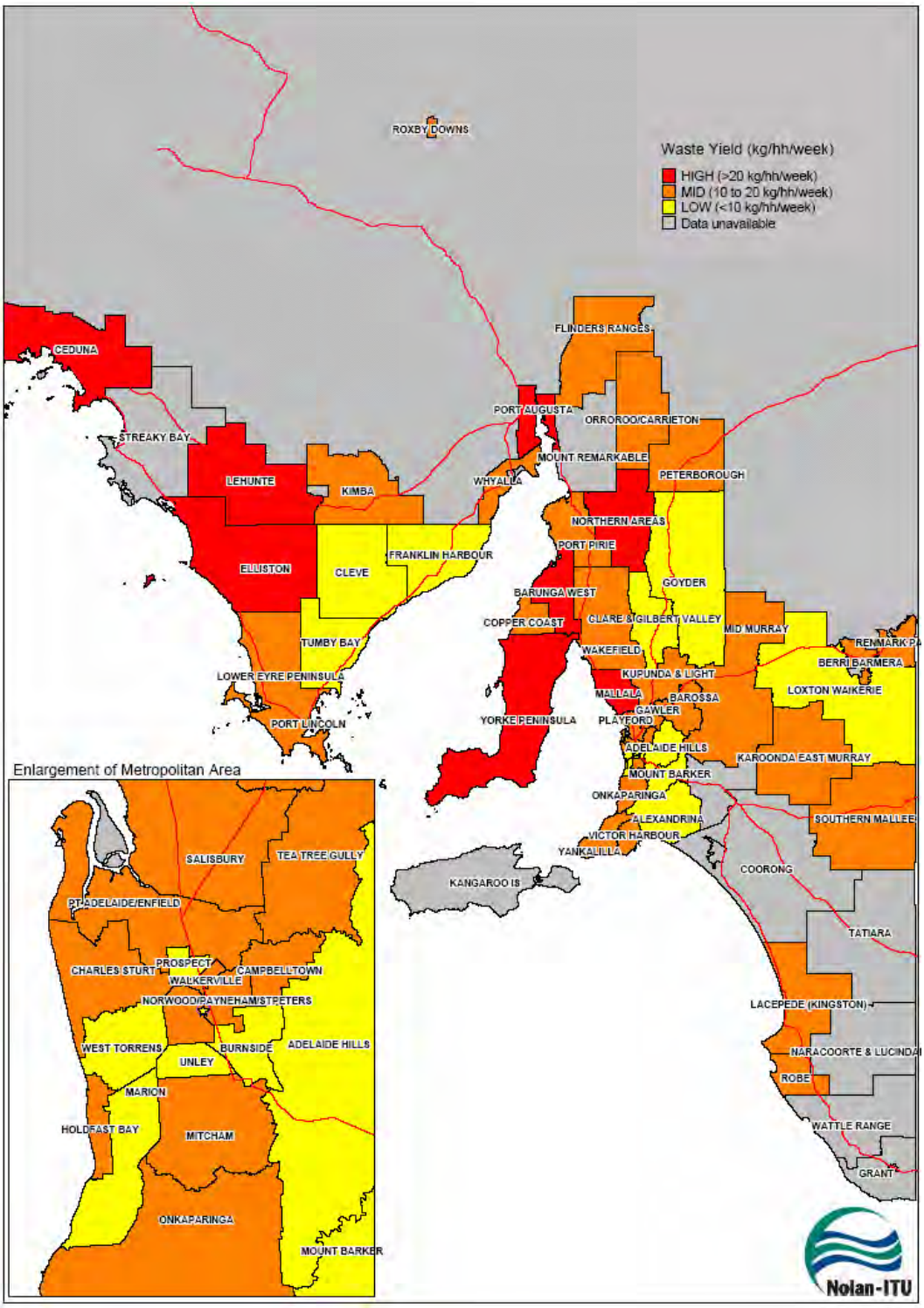

Figure 2. Map of South Australian with waste yield ranges by map location
(**Source**: Nolan-ITU, 2002)

Material Flows

The return of deposit containers gets recorded at the drop-off centres across South Australia (See **Table 1** for summary). Previous waste audits provided data allowing estimates to be made of the quantities of deposit containers entering the kerb-side recycling and the municipal solid waste streams (See **Table 1**).

Table 1. Location type, number of serviced tenements, the total amount of kerb-side recycling, the number of recycling depots, the tonnes of deposit containers collected at depots, approximate tonnes of deposit containers in Kerb-side waste and approximate tonnes of deposit containers in Kerb-side recycling for 25 South Australian locations in 2001.

Location	Location Type	Service Tenements Waste	All kerb-side Recycling	Recycling Collection Depots	Deposit Containers Collected at Depots	Deposit Containers in Kerb-side Waste	Deposit Containers in Kerb-side Recycling
		hh	t/y	Number	t/y	t/y	t/y
Adelaide City	Metro	8,878	455	1	0 (?)	103	36
Adelaide Hills	Prov	14,500	1,126	4	251	75	79
Burnside	Metro	18,340	3,757	1	415	71	113
Campbelltown	Metro	18,250	2,116	2	1,246	353	106
Charles Sturt	Metro	46,500	3,990	1	858	835	359
Gawler	Metro	7,693	1,285	1	529	36	77
Holdfast Bay	Metro	17,152	1,365	1	26	125	136
Marion	Metro	34,400	4,096	0	835	486	287
Mitcham	Metro	26,000	2,947	0	443	105	59
Norwd~Pyham~StP	Metro	16,700	1,198	0	714	126	60
Onkaparinga	Metro	61,000	3,355	3	2,717	430	101
Playford	Metro	26,429	4,205	1	1,025	277	210
Prospect	Metro	8,916	1,127	2	702	86	23
Pt Adelaide/Enfield	Metro	50,000	4,810	0	4,559	220	96
Salisbury	Metro	44,865	7,824	1	2,493	126	156
Tea Tree Gully	Metro	36,000	4,586	1	1,150	158	229
Unley	Metro	18,734	2,689	0	0	42	134
Walkerville	Metro	3,000	443	1	0 (?)	27	18
West Torrens	Metro	24,000	3,220	1	3,403	100	64
Barossa	Prov	7,510	443	8	371	29	22
Loxton Waikerie	Town	4,500	0	1	310	21	NA
Murry Bridge	Prov	7,300	0	1	738	0 (?)	NA
Mount Gambier	Prov	10,000	0	1	641	55	NA
Victor Harbor	Prov	5,100	0	2	420	33	NA
Whyalla	Prov	10,000	978	3	559	94	10
The Areas Above	***Mixed***	***525,767***	***56,014***	***37***	***24,405***	***4,012***	***2,376***
All Other Areas	Mixed	82,016	2,610	81	7,676	Unknown	Unknown
All South Australia	**Mixed**	**607,783**	**58,623**	**118**	**32,081**	**Unknown**	**Unknown**

(**Source**: Nolan ITU, 2002) (**Note**: The amounts given in the table are estimates and are not exact)

Litter figures for South Australia still need to be compiled and assessed to provide any clear indications of amounts and material types littered.

Concluding Summary

Since the inception of the CDL, the system in South Australia has changed considerably with respect to the containers that attract deposits. The infrastructure that supports the CDS operates along side other waste management systems, such as municipal waste collection and kerb-side recycling. Deposit containers are processed by all three systems. The CDS captures most deposit containers. However, the figures provided so far do not account for materials entering the litter waste stream.

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Beverage Container Deposit Systems in Canada: Key Features

State	Dates	Beverages and or Containers Covered	Amount of Deposit	Redemption Rate(a)		Reclamation System	Unredeemed Deposits	Handling Fee
				Material/Beverage	%			
Alberta		All beverage containers except milk	<1 ltr 5¢	overall	80%	Return to 214 permitted province-wide depots	Retained by distributor/bottler	Between 3.6¢ and 6.8¢. Ave 4.5¢
Enacted			>1ltr 20¢	aluminum	84%			
Implemented			beer 10¢	glass	81%			
Updated (expanded)				PET	85%			
Other Features	Redemption on refillable beer 96%. **Beverage Container Recycling Regulation**							
British Columbia		All beverage containers except milk	5¢	overall	75-80%	Return to retail and 160 province-wide depots	Retained by distributor/bottler for non-alcohol & domestic beer, and by vendor for alcohol	Between 3¢ and 11¢.
Enacted	1970		10¢	aluminum	86-92%			
Implemented			20¢	glass	51-69%			
Updated (expanded)	1998		30¢	PET	66%			
Other Features	Redemption on refillable beer 92%. New Legislation: **Beverage Container Stewardship Program Regulation 1998.**							
Manitoba		Beer containers only	beer 10¢	overall	31%	Return to retail for beer only	Retained by beer distributor/bottler	None
Enacted				aluminum	25%			
Implemented				glass	35%			
Updated (expanded)				PET	38%			
Other Features	Redemption on refillable beer 98%; Redemption on HDPE 26%,steel 26%, gable top/aseptic 26% **Multi-Material Stewardship (Interim Measures) Regulation**							
New Brunswick		All beverage containers except milk	< 500ml 10¢	overall	74%	Return to 89 province-wide depots	Retained by distributor/bottler	3¢ / unit
Enacted			>500ml 20¢	aluminum	80%			2.2¢ / refill beer
Implemented				glass	65%			
Updated (expanded)				PET	75%			
Other Features	Redemption on refillable beer 96%; Redemption on other materials 70%. **Beverage Containers Act**							
New Foundland		All beverage containers except milk	non-alcohol 6¢	overall	68%	Return to 37 province-wide depots and 50 satellite depots	Retained by gov. body (MMSB) and used to off-set costs. Surplus is placed in provincial trust fund.	2.75¢ / unit
Enacted			liquor 20¢	Refill Beer	95%			
Implemented				Beer cans				
Updated (expanded)				Domestic	54.60%			
Other Features	Redemption on refillable beer 95%. **Waste Management Regulations**							
Nova Scotia		All beverage containers except milk	Liq NRe 5 - 10¢	overall	79%	Return to 90 province-wide depots	Retained by gov. body (RRFB) and used to off-set costs. Surplus is used for municipal curbside and depot programs.	2.75¢ / unit
Enacted			Liq Re 8 -20¢					
Implemented	**1995**		N-liq NRe 5¢					
Updated (expanded)			N-Liq Re 10¢					
Other Features	Legislation:- **Solid Waste-Resource Management Regulations** (**under Section 102 of the Environment Act S.N.S. 1994-95**). Redemption on refillable beer 96%							
Ontario		Beer and refillable soft drinks	beer 10¢	overall	35 - 50%	Return to retail for beer only	Retained by beer distributor/bottler	none
Enacted			refillable soft	beer cans	80% (i)			
Implemented			drinks 40¢					
Updated (expanded)								
Other Features	Redemption on refillable beer 97%							
P.E.I.		soft drinks / alcoholic beverages	beer/wine/liquor	soft drinks	98%	Return to retail and 15 province-wide depots	Retained by beer distributor/bottler	Fee taken from deposits at 3¢, 5¢, 10¢ given deposit amount
Enacted			10¢ - 20¢,	wine/liquor	59%			
Implemented			soft drinks					
Updated (expanded)			20¢, 40¢, 80¢					
Other Features	Redemption on refillable beer 94%. **Litter Control Regulations**							
Quebec		All beer and soft drinks	soft drinks 5¢,	overall	77%	Return to retail	Retained by beer distributor/bottler	2¢ / unit for non-refillables
Enacted			beer 10¢,	aluminum	77%			
Implemented			beer > 450ml	glass	76%			
Updated (expanded)			20¢	PET	75%			
Other Features	Redemption on refillable beer 97%; redemption on one-way beer bottles 76%							
Saskatchewan		All beverage containers except milk (milk is under a voluntary scheme)	5¢ - 20¢,	overall	88.9%	Return to 71 not-for-profit SARCAN redemption depots province-wide depots	Retained by Province and used to pay for the program through SARCAN annual operation contract fee.	approx 3.3¢ / unit
Enacted	**1978**		40¢ for glass	metal cans	96%			
Implemented			>= 1 ltr	glass	83.50%			
Updated (expanded)	multiple times			plastic	84.50%			
Other Features	Legislation :- **L-22 - Litter Control Act 1978**. Redemption on refillable beer 93%; Redemption of aseptic containers 45.2%; Surplus unredeemed funds are placed in general revenues with a part used to extend recycling programs.							

Source : CM Consulting, 2000

Table format by Container Recycling Institute.

Beverage Container Deposit Systems in Europe: Key Features

State	Dates	Beverages and or Containers Covered	Amount of Deposit	Redemption Rate(a)		Reclamation System	Unredeemed Deposits	Handling Fee
				Material / Beverage	%			
Austria [1]								
Enacted	(a) 1990	(a) the deposit applies to refillable pet bottles only. (b) targets apply to Beer, softdrink and water	(a) US40¢ refillable PET	aluminum	60%			
	(b) 1992		(b) Recycling fee voluntary US2-8¢					
Updated (expanded)				One-way PET	30%			
Other Features	The relevant laws are (a) the **1990 Order Concerning Refillable Bottles**, and (b) the **1992 Federal Order for the Establishment of Goals for the Reduction and Recovery of Container Packaging and Related Packaging** Purpose: (a) to ensure the success of the refillable system. (a) requires deposits on refillable PET bottles (non-refillable plastic containers are exempt). (b) Sets recycling/reuse targets for beverage containers to be achieved by 2000.							
Belguim [1]		Beer Soft drinks, Soda water	US12¢ < 50cl (voluntary)					
Enacted	1993		US24¢ > 50cl (voluntary /					
Implemented	pending		mandatory for exemption)					
Updated (expanded)			US52¢ per litre (tax)					
Other Features	The objective of **The Ecotaxes Act of 1993** is to: eliminate polluting and wasteful production processes, save natural resources through reuse and recycling, rational use of energy and encourage clean technologies. To be tax exempt container must: be reusable 7 times, actually be refilled, carry a deposit and show indication of refillability and deposit value. The US52¢ per litre tax applies to containers that do not comply with the Provisions of the Law.							
Denmark [1]		Beer and Soft Drinks	US 27¢ < 99cl (voluntary)	Beer & Sdrinks	99 % +			between
Enacted			US 78¢ < 99cl (voluntary)	Liquour	60%			1.7 and 7.4
Implemented	1989		US 78¢ (voluntary) on	wine (see below)	80%			euro cents per
Updated (expanded)	1991		Refillable PET	PET refillable	99%			container
Other Features	The objective of the **Statutory Order on Packaging for Beer and Soft Drinks #124**, ammended by **Statutory Oder #540** is to: reduce the consumption of disposable packaging and stimulate recycling. All domestic beer and softdrink must be sold in refillable bottles. Metal containers are effectively banned. Mandatory deposit/return system for imported containers made of glass and plastic. Amount of tax US 14¢ ~ 0.1 - 0.6 litres, US 23¢ ~ 0.6 - 1.06 litres, US 33¢ ~ >1.06 litres. recovery rates for wine include reuse and recovery							
Finland [1]		One-way beer and soft drink containers	US 11¢ (to be tax exempt)	Refillables overall	95 - 98%			
Enacted			US 45¢ for larger sizes	One-way Overall	75%			
Implemented	~1975, 1990		(to be tax exempt)	Liquour & wine	72 -75%			
Updated (expanded)				Imported Beer	50%			
Other Features	**Excise taxes on beer and softdrinks** and the **Waste Management Act (1990)**. Requires taxes on one-way beverage containers. Tax Amount: Soft drinks in glass o Metal US 71¢ per litre, Soft Drinks in plastic US 47¢ per litre, Beer US 24¢ per litre. Tax exemptions apply if: container carries deposit, high return rates reached, collected material is recycled, enough collection points, regular reporting and not weaken refillable system infrastructure.							
Germany		Beer, waters, carbonated softdrinks and noncarbonated softdrinks	US 25¢ on beer, water	overall				
Enacted	1991		and carbonated softdrinks	aluminum				
Implemented	2003		In 2004 non-carbonated	glass				
Updated (expanded)	2004 & 2006		softdrinks included	PET				
Other Features	The deposit system has been triggered by a provision in the **1991 German Packaging Ordinance** requiring mandatory deposits to be imposed if the market share of refillable bottles was not maintained [4]. As of May 2006, retailers must take back all packaging made of materials they sell, irrespective of brand.							
Israel [3]		All beverage containers excluding milk	25 agorot for containers	overall	55%			
Enacted	1999		between 0.15 - 1.50 litres					
Implemented	2001							
Updated (expanded)								
Other Features	The objectives of **The Deposit Law on Beverage Containers**: improve cleanliness and reduce litter, reduce waste quantities and landfill volume, and encourage recycling and reuse of beverage containers.The non-profit Drink Containers Collection Corporation Ltd. was created to handle the logistics of delivering the redeeme containers to the recycling facilities.							
Netherlands [1]		One-way and refillable glass and PET containers for Soft Drinks and Waters	US 16¢ < 0.5 litres	Refillable Glass	98%			
Enacted			US 72¢ > 0.5 litres	Refillable PET	99%			
Implemented	1960		for PET and Glass					
Updated (expanded)	1993		US 64¢ > 1 litre PET refill					
Other Features	The objective of the **Deposit Law on Soft drinks and Waters** is to reduce the amount of one-way containers in the waste stream.							
Norway [1]		Beer, Carbonated Beverages, Wine, Liquor and Non-Carbonated Beverages	US 16¢ < 0.5 litres	Soft Drinks	98%			
Enacted			US 40¢ > 0.5 litres	wine/liquor	60%			
Implemented	1974			Beer	98%			
Updated (expanded)	1994							
Other Features	The objective of the **Product Control Act** is to limit pollution and waste by encouraging the use of refillables. All one-way beverage containers carry a tax of NOK0.70. Also there is a product charge on all one-way and refillable beverage containers. The full charge applied below 25% return, charge reduced inversely proportional to return, and exempt when return >95%. charges : Beer/SoftDrinks US 48¢, Non-carbonated Beverages US 4¢							
Sweden [1]		(a) Aluminium cans (b)One-way glass containers	US 7¢ Aluminium Cans	One-way PET	40%			
Enacted	(a)1982		US 14-24¢ One-way PET	Refillable PET	75%			
	(b)1993		US 56¢ Refillable PET	One-way Glass	45%			
Updated (expanded)				Aluminium Cans	91%			
Other Features	(a) The objective of the **SFS 1982 349** (ammended 1986 & 1994) is for the reduction of litter and solid waste. (b) The objective of the **SFS 1993 1154** (ammended 1994) is to require manufacturers to accept responsibility for glass and cardboard packaging. All deposits are voluntary.							

[1] Container Recycling Institute, (accessed 17/03/2006), "Worldwide Bottle Bills". URL:http://www.bottlebill.com/geography/worldwide.htm

[3] Israel Ministry of the Environment, 2005, "Deposit Law on Beverage Containers". (accessed through) URL:http://www.sviva.gov.il/Enviroment/bin/en.jsp?enPage=e_homePage

[4] The European Organization for Packaging and the Environment, 2003, "Mandatory deposits for non-refillable beverage containers". URL:http://www.europen.be/mandatorydeposits.doc

Table format by Container Recycling Institute.

SUBJECT: **Workshop on Components, Elements and Outcomes of CDS**

SUMMARY: The text that is underlined are the additional comments on the previous proposed model from the SAG workshop on Friday 1st of September facilitated by Cathy Campbell.

Components & Elements

Components

Administration
Infrastructure
Legislation

Elements

Administration (elements)

Deposit level (encourages redemption of containers)

- Flexible over time – mandated minimum review of deposit level
- Financial viability of the scheme & behavioural change
- Interstate synergies
- Recommendation on two parts (deposit and RRF)? (legal advice)

Resource Recovery Fee level (pays for system operation) – differential/price signal for improved product design
Auditing system for Deposits and Fees
Auditing system for material flows
Body that governs and controls Deposits and Fees – don't strike out industry run scheme or hybrid. What are the options & what are the benefits of each?
Policing deposit container compliance.
Fraud detection
Transparency of reporting and community.

Infrastructure (elements)

Location of Redemption Facilities, satellite RVM and mobile units (population catchment metro/region, strategic locations, size of operations)
Automation (improve cost, quality control, audit processes and OH&S efficiency)
Pre-processing efficiency (baling, crushing, melting, regional scale infrastructure, mobile units)
Logistics (to local markets, to markets overseas, remote location subsidies, periodic pick-ups)

Legislation (elements)

Deposit Containers (scope of containers covered by system)
Change in Container Scope (Assessment system for including or refusing containers or placing special conditions on particular containers)
Appropriate methods for handling containers and redeemed materials (sort to material and colour, sort by weight over set number of containers, fees for various handling stages sort/bale/transport, remote location subsidies)
Reporting and Auditing requirements
Licence to operate and conditions
Unredeemed Deposits and Fees hypothecated and used towards associated environmental programs
Alternative pathways for payment (particularly RVM credit systems, advanced payments for remote locations, one off licence for special event clean-up or special litter clean-up events)
WARR Bill imminent therefore a decision on the controlling body needs to be made ASAP.
Parameters (role) and licensing implications/conditions.
Regulations versus Legislation – option?

Example best practice Container Deposit System Outcomes

Social Outcomes

Improved visual amenity due litter abatement (level of effect?)
Reduced lacerations and reduced damage to property from discarded glass containers (level of effect?)
Opportunities for Not for Profit group income
Improved community sense of value of recycling and resource recovery
Increased employment
Level of deposit (behavioural change)
Range of containers
Define baseline – best available – [how to determine? Best practice]
Accessible system
Improved packaging
User friendly system
Environmentally friendly system (facility presentation)

Economic Outcomes

Lowest cost (for set recovery level or overall)
Increased material value for redeemed container material (range)
Increased metro and regional waste management infrastructure
Reduced cost of Kerb-side recycling system (includes increased income from paper and deposit containers)
Reduced cost of MSW collection and reprocessing (includes compost quality improvement and reduced wear and tear on capital equipment due to reduced glass content)
Development of local reprocessing industry
Reduced litter costs
Generation of unredeemed deposit income
Level of deposit
Range of containers
Define baseline – best available – [how to determine?]
Lowest cost with financial viability/acceptable outcomes (all3)

Environmental Outcomes

Reduction in GHG emissions
Reduction in resource use
Reduction in waste, e.g. Less contamination and reduced landfill
Biodiversity protection
Lower Litter levels
Increased resource recovery
Range of containers
Define baseline – best available – [how to determine?]
Improved packaging

DATE: OCTOBER 31ST, 2006

TIME: 5.14PM

STATION: ABC REGIONAL DRIVE (WEBB)

SUBJECT: **MITCHELL - RECYCLING**

Acknowledgements:

WA Regional Drive, 'Interview with Bill Mitchell and Jeff Angel on recycling' by Helena Webb, first broadcast 31 October 2006 on ABC WA Local Radio is reproduced by permission of the Australian Broadcasting Corporation and ABC Online.

HELENA WEBB

Well how much time do you spend separating your recyclables when you take out the rubbish? Yesterday on Drive, executive director of the Total Environment Centre, Jeff Angel, really lamented over WA's poor recycling record.

JEFF ANGEL

I'm afraid West Australia does have the worst waste generation per person and the second lowest rate of recycling. It's a combination of a late start on kerbside recycling practices over the last few years, you've had the closure of some important reprocessing facilities for glass and paper, and what have you, and that, of course, means that if you don't have the other markets, it ends up in the landfill.

And West Australia, until recently, has been a bit behind on the newer type of waste policy, such as extended produce responsibility, but Government is looking at container deposits, and that's certainly a first and important step in getting to a modern type of wasteless economy in society.

HELENA WEBB

How much waste are we talking about?

JEFF ANGEL

Currently, West Australia is disposing of almost four million tonnes of waste landfill each year. Our estimates are that if nothing is done, that will actually rise to nine million tonnes by 2020.

HELENA WEBB

That's executive director of the Total Environment Centre, Jeff Angel. Well with much of the reprocessing now being done interstate, how viable is it for local governments to

continue collecting those green and yellow bins? And what percentage of your recyclables actually makes it back into the system?

Councillor Bill Mitchell is the president of the Local Government Association. Hi, Bill …(greetings not transcribed)…

Bill, over the past couple of years, WA has lost a glass reprocessing plant and also a couple of months ago, a paper plant as well. How much of our recyclable material actually makes it back into the system?

BILL MITCHELL

You're quite right, Helena, the glass reprocessing closed in 2004 and paper just recently, on the 29th of September. So it does increase the uncertainty of what local governments can get for their products.

It's really not economic to ship glass overseas, so we rely on interstate processing of that. But currently paper is being shipped overseas at a reasonable return.

HELENA WEBB

Okay, so glass goes to where?

BILL MITCHELL

Primarily, to South Australia.

HELENA WEBB

How much of it actually gets there?

BILL MITCHELL

In terms of what is bought in the shops?

HELENA WEBB

Yes.

BILL MITCHELL

I can't tell you that percentage, but it's reasonably high, but not significant enough to disregard the fact that if we brought in extended producer responsibility, that would help raise the return.

HELENA WEBB

Can you run through the process, what actually happens to our recyclables? How do they make it back into the system from the moment they're picked up from our kerb, where does it go?

BILL MITCHELL

In the metro area, and I suppose I need to start by saying that not all councils have recycling process, all the metro councils do, and mainly the regional… larger regional centres, such as Bunbury and Kalgoorlie, Esperance, Albany, etcetera, run recyclables, but… recycling programs, but not the rest of the councils in Western Australia. So that limits the percentage that does get recycled for a start. WA being a third of the nation makes it a little difficult.

But the process is that there's… there's a collection point in regional groupings of councils in Perth and they have their own process of drafting off the products when they are delivered there by the recycling trucks.

HELENA WEBB

Bill, what impact has reprocessing recyclables interstate had on local government recycling programs? Are ratepayers footing any extra cost?

BILL MITCHELL

Currently, when the system of recyclables is reasonably highly priced, as it is at the moment, it's okay and councils can cope with that, but we are dependent on a world market and I suppose that adds risk to long-term investments in recycling plants.

It's quite an amazing cost when you consider that just in the Perth metro area, the cost annually on handling our waste is north of $135 million a year.

HELENA WEBB

Wouldn't it be in our best interests, through… in WA's best interests to have recycling plants here?

BILL MITCHELL

Certainly the plants are here, the regions are divided into areas that do do the recycling, but not the handling of that product. We feel that that's best left to the private sector.

HELENA WEBB

So how hard is it for regional shires to implement recycling programs?

BILL MITCHELL

Again, it's a cost factor. You can collect the product but then… and draft it up into different… the glass, the plastics, the paper, etcetera, but then the cost of bringing it to a centre where it can be shipped is a major cost.

We feel that the extended producer responsibility schemes, such as the container deposit schemes, where you pay a percentage on a drink container and then recover that at a retail centre that is participating in the scheme, is probably one of the better ways to go.

HELENA WEBB

Why does WA have the second worst rate of recycling in the country? What's not working for us?

BILL MITCHELL

I think initially it's the … that's a statewide figure and a third of the continent is a very hard area to cover. South Australia is seen as one of the better areas recycling, but , of course, 95% of their population is in 15% of the state, so it's a lot easier to consolidate that position.

HELENA WEBB

Is there much incentive for local government that's trying to get involved in recycling?

BILL MITCHELL

There is. I mean, it's certainly seen as a community responsibility that we do recycle and we do the best we can, but there isn't any incentive for local government to get into that final stage, production of actually being the recycler of the product, if you like.

HELENA WEBB

So with things like glass… so… I'm just trying to … you can't tell us quantities, how much actually goes back into the system? If we take stuff, you know… it's been transported to South Australia, how much of it is being transported to South Australia, volume wise, do we know?

BILL MITCHELL

Someone probably would, but I don't.

But glass is one of the easier ones to recycle, as is paper, because glass is glass and paper is paper. When you get to plastics, there's different chemical compositions of plastics and that it makes it more difficult to recycle.

HELENA WEBB

So is there any point us washing out all our plastics and things like that?

BILL MITCHELL

Sure, but just little things, for instance, the milk plastic containers, the plastic description label is a different substance to that of the milk container, for instance, and that needs to be removed before either product can be recycled into something worthwhile. Little things like that that we believe should go back to the producer and for those people to take more responsibility for their products.

HELENA WEBB

How much co-ordination is there between local government and also the state government when it comes to recycling?

BILL MITCHELL

A fair bit, but there's a new Bill about the be enacted which will certainly make that co-ordination a lot stronger, and part of the … that Bill dictates that there will be waste management authority, and that waste management authority will develop a statewide waste strategy, and I think that can only help the situation.

HELENA WEBB

What sort of strategies are in place say for like mining companies and things like that? Because obvisouly there's a lot of plastics and a lot of glass there. Where does all their waste go?

BILL MITCHELL

Essentially into a big hole in the ground.

HELENA WEBB

Should there be something in place to recycle all those materials?

BILL MITCHELL

Again, I suppose if the distance is considered and the cost of disposing of the product once it is drafted up, again, the way to go is container deposit systems where a reasonable amount of money is paid on the product at point of sale and then that is returned when you return that product.

HELENA WEBB

Bill, is it all about the dollar at the end of the day, it costs too much to recycle these particular things?

BILL MITCHELL

Certainly the dollar does drive the issue to a certain extent, but we also need to take into affect the environmental impacts of land fill. And the less that goes into landfill, the more that is recycled, the better off we'll all be.

HELENA WEBB

Bill, thanks very much for joining us this afternoon.

Ends…
dr

Additional Information Reviewed by the Stakeholder Advisory Group

South Australian Scheme

A fact sheet providing an overview of the South Australian CDL from Zero Waste SA (Online:<http://www.zerowaste.sa.gov.au/pdf/fact_sheets/container_deposit_legislation.pdf>).

The Environmental Guidelines for Collection Depots in South Australia produced by the SA Environment Protection Authority (Online:<http://www.epa.sa.gov.au/pdfs/collection.pdf>).

Two maps indicating the location of the metropolitan and regional container deposit depots operating in South Australia. Electronic map files available from Beverage Container Unit, via telephone 08-82042000 or email EPAcontact@epa.sa.gov.au .
(Contact point Online:<http://www.epa.sa.gov.au/cdl.html>).

Californian Scheme

A flow chart of the Californian system sourced from the California Department of Conservation (Online:<http://www.consrv.ca.gov/DOR/gpi/webcon.pdf>).

A Beverage Container Recycling Facility Application form from the City of Riverside, California. This was sourced online from City of Riverside, California
(Online:<http://www.riversideca.gov/planning/application-forms/H-04-0064-Beverage-Container.pdf>).

A poster showing applicable container types that are subject to California Refund Value (CRV) under the Californian Beverage Container Recycling Act
(Online:<http://www.consrv.ca.gov/DOR/gpi/Images/CRV4c.pdf>).

A product list of beverages covered under the Californian Beverage Container Recycling And Litter Prevention Act that was updated on December 11, 2006
(Online:<http://www.consrv.ca.gov/DOR/CRVinOutList.pdf>).

Documents Providing Information on Several Schemes in the United States and Canada

A table of the key features of all container deposit systems operating in the United States. This was sourced from the Container Recycling Institute
(Online:<http://www.bottlebill.org/legislation/usa_deposit.htm>).
Please Note: the format of this table was mimicked to create the Canadian and European summary tables, shown in full in Appendix 1.

A table comparing the program elements of Container Deposit Systems in California, Alberta and British Columbia. This was sourced from the Grass Roots Recycling Network
(Online:<http://www.grrn.org/beverage/deposits/model_comparison.pdf>).

Western Australian Information

Excerpts from the *Environmental Protection Act (Western Australia) 1986*
(Online:
<http://www.slp.wa.gov.au/statutes/av.nsf/SlpActV?openagent&act=Environmental+Protection+Act+1986>.

Reverse Vending Machine (RVM) Manufacturer Information

As part of the assessment by the Advisory Group, it was presented with information on several manufacturers of RVM's. A list of websites for several major manufacturers is included below.
Tomra from Norway – (Online:<http://www.tomra.no/>).
Repant from Norway - (Online:<http://www.repant.com/>).
Envipco from the USA - (Online:<http://www.envipco.com/reverse.asp>).
Redemption Solutions from USA - (Online:<http://www.redemptionsolutions.com/index2.htm>).

APPENDIX 2
Panel Members at the Public CDS Workshop, 19 September 2006

Part (i): Panel Members for the Scenario Planning Session on the 19.09.2006 on Container Deposit Systems for WA at the Waste & Recycle 2006 Conference, Fremantle, WA.

Panel members for the Scenario Planning Session 19/09/2006 on Container Deposit Systems at the Waste & Recycle 2006 Conference, Fremantle, WA

Darryl Young (Conference Key Note Speaker)
Darryl is Executive Director, Public Relations Division, Riester~Robb, California. Previously Darryl was the Director of the California Department of Conservation, where he led over 700 people with a budget of nearly $1 billion and was responsible for promotion and support of the largest beverage container recycling system in the USA.

Frank Ackerman (Conference Key Note Speaker)
Frank is Director, Research and Policy Program, Global Development and Environment Institute, Tufts University, USA.
He has worked extensively as a researcher and analyst in the areas of waste and energy economics. He has conducted studies of European environmental policies for the European Parliament, the Swedish government, and Greenpeace France, and has worked with numerous environmental organisations in the US.

Helen Spiegelman (Conference Invited Speaker)
Helen is co-founder and President of Product Policy Institute, a North American non-profit research and communication organisation.
From 1990 to 1997, Helen was Director of Communications for the Recycling Council of British Columbia (RCBC) in Vancouver. In that role she played a critical part in building public support for producer responsibility laws in British Columbia

Bill Sheehan (Conference Invited Speaker)
Bill is co-founder and Director of the Product Policy Institute, a North American non-partisan non-profit research and communication organisation.
From 1995 to 2003, Bill co-founded and led the GrassRoots Recycling Network. During that time he helped launch a global movement for Zero Waste and worked to focus the recycling movement on extending producer responsibility for waste as a prerequisite for zero waste

Warrick Hassan (Beverage and Packaging Industry)
Warrick is a senior manager for a large Australian glass reprocessor and represents the interests of that business on matters of packaging stewardship.

Jenny Pickles (Beverage and Packaging Industry)
Jenny works with the Product Stewardship Forum an organisation with in the Australian Food and Grocery Council that represents the interests of a section of the beverage and packaging industry. Previously Jenny was employed by EcoRecycle Victoria.

Russ Martin (Beverage and Packaging Industry)
Russ represents the Industry Association on the National Packaging Covenant. Russ is also the principal of a consultancy firm that specialises in waste management.

Markus Fraval (Collection Technology Providers)
Markus is the Chief Executive Officer for Revive Recycling a Reverse Vending Machine Distributor in Australia.

David West (Non Government Organisation)
David is the National Campaign Coordinator for the Boomerang Alliance, an organisation representing the interests of a large number of Non-government organisations and Local Government Authorities with regard to waste issues. Previously he was National Line Haul Manager and Operations Manager for two of Australia's largest transport companies

John Phillips (Non Government Organisation)
John is Executive Director of Keep South Australia Beautiful Inc., a not for profit non-government organisation focusing on litter management and litter abatement in South Australia.

Klaus Mueller (WA Local Government)
Klaus is the Waste Management Officer for the Shire of Manjimup in the South West of Western Australia.

Robert Verhey (NSW Local Government)
Robert is the Waste Policy Manager for NSW local government and shires association.

Clive Robartson (WA Local Government)
Clive has had extensive experience in local government and waste management, and he is a current member of the Southern Metropolitan Regional Council.

Vaughan Levitzke (State Government)
Vaughan is the Chief Executive of Zerowaste SA, a South Australian Government waste management body.

Carolyn Jakobsen (Waste Management Board)
Carolyn has been a Federal Member of Parliament and is currently a member of the Waste Management Board of Western Australia

Tim Grant (Researcher – Life Cycle Analysis [LCA])
Tim is Assistant Director and Manager Life Cycle Analysis at the Centre for Design at RMIT. He has been involved in Life Cycle Analysis research with regard to packaging.

Matthew Warnken (Australian Environmental Consulting Industry)
Matthew is an independent environmental researcher who runs a leading environmental consultancy specialising on environmental externalities and market based instruments for waste management.

Mitchell Ross (Materials Reprocessing Industry)
Mitchell has extensive knowledge of the Glass reprocessing industry and has worked in the area of glass processing in Western Australia for a considerable time.

Charlie Woolford (Materials Trader)
Charlie is a materials trader with extensive knowledge of the recycled materials market place. He specialises in the plastics market.

Robert Morris (Waste Management Industry)
He is Manager of Material Recovery from BIS Cleanaway Western Australia.

APPENDIX 3
Submissions

Part (i): Letter to the Chair of the Stakeholder Advisory Group from the Chair of the Waste Management Board.

Part (ii): Letter to the Chair of the Stakeholder Advisory Group from the Chair of the Packaging Stewardship Forum.

Part (iii): Submission from Anne Braithwaite (an Advisory Group Member Representing the Australian Food and Grocery Council) Reviewing the Hawaii CDL Auditor Report.

Part (iv): Letter to the Chair of the Stakeholder Advisory Group from Mark McGowan the then Minister for the Environment drawing the Chair's Attention to three Accompanying Items that the Minister wanted to Advisory Group to Review.

- Item (a) A submission to the Western Australian Government from Diageo;
- Item (b) A Copy of the Findings in Relation to CDS by a Recent Tasmanian Parliamentary Inquiry into Waste Management;
- Item (c) Summary of a letter from Revive Recycling indicating support for CDS in WA.

Part (v): Letter and Submission to the Chair of the Stakeholder Advisory Group from Anne Braithwaite on Behalf of the Australian Food and Grocery Council.

Part (vi): Submission of a Draft Policy Statement on Container Deposit Systems from Jan Grimoldby on Behalf of the Western Australian Local Government Association.

OUR REF:

Chair of the Stakeholder Advisory Group on
Best Practice Container Deposit Systems for Western Australia.
C/o The Waste Management Branch
The Department of Environment
Level 7, The Atrium Building
168 St George's Terrace
Perth WA 6000

PRINCIPLES ON CONTAINER DEPOSIT SYSTEMS FOR WESTERN AUSTRALIA, FOR INPUT INTO THE STAKEHOLDER ADVISORY GROUP

The Waste Management Board (otherwise known as the Board) provides advice on waste management and resource recovery issues to the Minister for the Environment. Also the Board gives consideration to the most appropriate use of the Waste Management Levy Fund, and its experience with considering appropriate use of accumulated funds from waste generating activities has given it considerable insight into overseeing such matters.

As the Stakeholder Advisory Group on Best Practice Container Deposit Systems for Western Australia (otherwise known as the Advisory Group) moves forward with its investigation the Board would like to provide support in areas where it can offer some guidance based on its experience base.

At the second meeting of the Board this year (10/03/2006), members gave consideration to the likely key principles of good governance when over seeing a Container Deposit System. The principles identified in the initial discussion included:

Public fund for unredeemed deposits. That unredeemed deposits are hypothetically being held pending redemption, those monies are the property of the purchasers of the contents of the unredeemed deposit containers (an unknown, but real subset of the general public). This may legally make the monies akin to lost property, and thus those monies may need to be held in trust. A likely appropriate structure for holding these "public" monies would be a government trust fund.

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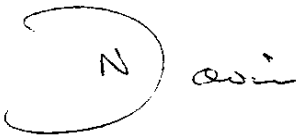
Transparency of financial flows relating to unredeemed deposits. As these monies may accumulate and be required to be protected within a public fund structure (such as a trust fund), these monies should be tracked. Thus, the quantification of unredeemed deposit values per redemption depot, per set period of time, on an on-going basis would achieve a suitable mechanism to allow auditing of financial flows. This in turn makes for good management and the opportunity for public probity, if required.

Record keeping of material flows. The mass and volumes of deposit containers, as well as their location and redemption dates at a workable resolution and scale would aid good management and planning, and be useful when cross referencing against financial flow information.

If you have any queries regarding the subject matter of this letter, please contact Noel Davies through the Waste Management Branch at the Department of Environment on
email: diane.mckinnon@environment.wa.gov.au
phone: (08) 6364 7027.

Yours sincerely



Noel Davies
CHAIRMAN
WASTE MANAGEMENT BOARD

4 April 2006

5 May 2006

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Mr John Hyde MLA
Chair – Best Practice Container Deposit Systems WA –
Stakeholder Advisory Group
c/o Waste Management Branch
Department of the Environment
PO Box K822,
PERTH WA 6842

Dear Mr Hyde

I write in reference to current items under consideration by the Stakeholder Advisory Group (SAG) – Best Practice Container Deposit Systems (CDS) WA.

In performing her duties as the industry representative on SAG, Ms Anne Braithwaite, our WA Manager, has undertaken consultation with a working party of food, beverage, and packaging industry representatives regarding the re-draft of the Technical Support Groups Rationale (herein "the Rationale") for implementing best practice CDS in WA.

This letter which we request is forwarded to SAG members for their consideration and formally responded to - conveys to you the strong concerns of the industry working party about the fundamental lack of rigour or serious analysis that is evident in the Rationale (and other documents being presented for the SAG's consideration). The comments below are by no means exhaustive and are presented primarily in the hope of alerting you to the need for significant improvement in the SAG's documentation and processes.

Key Principles/Rationale

"It considers popular community engagement at the level of individuals." This is an unworkable principle for the design of environmental policy or management activity for several reasons. First, notions of community popularity are largely subjective and difficult to prove in any objective way. This is particular the case if the community is not exposed to the full dimensions of the seemingly "popular" proposition. For example, would a CDS be "popular" at the cost of an additional $100 million per year to Western Australian consumers? Secondly, it can easily be argued that the current packaging waste management practice in WA is exceedingly popular, eg, participation levels of over 80% in kerbside recycling schemes. In fact, some commentators have noted that kerbside recycling is probably the most popular and successful program ever run by local governments in Australia. Hence, on the basis of "popularity", why therefore would additional measures to kerbside recycling be required? Thirdly, the popularity of a given measure is not necessarily commensurate to its environmental or other merit. Indeed, the converse is often true, such as water conservation measures in WA. In light of the above, the following alternative wording is suggested: **"It has the capacity to significantly**

change and improve community behaviours in relation to packaging waste minimisation activity and has the lowest possible impact on the majority of packaging waste management and other related stakeholders."

"It incorporates improvement to the environment and sustainability." This is an unworkable principle for the design of environmental policy or management activity for several reasons. First, it is too broad to be in anyway meaningful. Indeed, what is the improvement under consideration and against what baseline of current performance is that improvement to be determined? Additionally, there is no reference to the only widely adopted (including by the WA Government) policy framework for the improvement of the life-cycle environmental management of packaging. Secondly, the definition of sustainability in this context is left un-stated and unclear. In light of the above, the following alternative wording is suggested: **"It has the capacity to achieve in WA a proportionate, multi-material contribution to the national packaging waste recovery target enshrined in the National Packaging Covenant."**

"It attempts to incorporate the economic, environmental and social dimensions of CDS." This meaning and intent of this principle is very unclear. We believe it may be trying to convey the need to strike an appropriate balance between economic/financial costs and benefits, environmental costs and benefits, and social costs and benefits in a CDS. If this is the case, it may be better stated as follows: **"It achieves the highest possible environmental and social benefit from packaging waste management activity at the lowest possible economic, environmental and social cost."**

In addition to the three principles discussed above, the industry working party believes that it is vital to consider other aspects in designing and developing any packaging waste management policy or management system. These include:

- Logistical and operational feasibility of the system;
- Consequences to the WA economy from introduction and operation of the system;
- Social equity of the system;
- Capacity to create competitive disadvantages among WA businesses;
- Consistency of the system with current legal, regulatory, and policy provisions – both in WA and nationally;
- Timeframe for system introduction.

<u>General Comment</u>

The working party believes that the principles discussed above have been flawed for one pivotal reason. Namely, at no point has the WA Government stated the specific and clear policy objective for seeking a CDS for WA. In the absence of a specific and clear policy objective, or in other words, statement of the specific environmental or other problem that requires fixing, the SAG will struggle to develop any coherent Rationale by which to design and develop a CDS. We acknowledge that it maybe beyond the scope of SAG to define this and we therefore suggest the group as a matter of urgency write to the Environment Minister to seek his direction on what specific policy objectives a container deposit system for Western Australia would be required to address. Frankly, the SAG risks working on a solution that is either not fitted to any particular problem or is disproportionate to a given problem. The questions of "What is the Problem?" and "What

are the Options to Solve the Problem?" must be addressed and answered to enable serious policy or system development.

I thank you in advance for considering our views. The working party looks forward to your response, particularly in terms of our suggestions to the draft Rationale principles and our broader comments on the need for greatly improved rigour in the SAG's decision-making process.

Yours sincerely

Alec Wagstaff
Chairman
AFGC - Packaging Stewardship Forum

AUSTRALIAN FOOD AND GROCERY COUNCIL

Date: 19 June, 2006

Submitted by: Anne Braithwaite

Hawaii CDL Auditor Report

Overview

A November 2005 audit[1] of Hawaii's Deposit Beverage Container Program by the Hawaii State Auditor identified various issues with the state's administration of the program that were significant by themselves, but also hindered convenient redemption opportunities for consumers. Some of the matters raised were particular to the Hawaii program or transitional in nature, but as a member of WA's Stakeholder Advisory Group I would like other members of the Group to be informed of the following issues to further inform their discussions.

Summary of Report Findings

- Despite two years' lead time, "the Department of Health was not ready to properly and efficiently return consumers' deposits". Principal reasons included the Administration's attempts to repeal the law; failure to properly resource implementation efforts; lack of sufficient auditing and enforcement; and emphasis on recovering deposits.
- Auditors found the redemption process confusing and reinforced many consumer complaints, stating "Many view the program as an attempt to impose another state tax by forcing consumers to pay the deposit but making it difficult to obtain the refund." Lack of consistent guidelines for redemption centre operation was exacerbated by failure to understand impacts on consumers and reluctance to interfere with redemption centre operation due to limited coverage in some areas and lack of competition.
- Lack of appropriate audit, verification and accounting processes resulted in inability to properly track distributor payments to the state and state payments to redemption centres.

Implementation issues identified for SAG consideration (based on the Hawaii experience) should a CDS be introduced in WA

- Appropriate roles for Government agencies and industry sectors would need to be clearly articulated and understood well in advance of implementation.
- Guidelines and/or consistent standards for redemption centre operation would need to be developed in consultation with redemption centre operators and conveyed in advance of program implementation to reduce confusion. Such procedures would also need to be incorporated into enforcement, verification and auditing processes.
- Clear, accountable processes must be in place to reduce impacts of fraud and mismanagement. Auditors were especially critical in this area for Hawaii's program, with comments such as:
  - "There is no way to confirm whether all required fees are being collected from the distributors and if revenue is being lost. The lack of these components contributes to an environment ripe for abuse."
  - "Payments to redemption and recycling centers are based on unverified numbers."

[1] Available at http://www.hawaii.gov/auditor/Reports/2005/05-09.pdf. Accessed April 2006.

- "We observed and experienced many examples of inaccurate transactions to know that this is a major weakness of the system that is susceptible to exploitation and abuse."

- Effectively tracking container, material and revenue flows may be hampered by the nature of current recycling activities. The auditors highlighted difficulties such as:
  - Time lags between redemption and shipment to end users.
  - Combination of materials from different redemption centres and with similar materials not subject to the deposit, such as scrap metal.
  - Differing handling fees to reflect varying shipping costs.
  - Differing weights due to shrinkage or contraction.
  - Difficulties confirming practices of end users.
  - Auditors also highlighted potential for customers to conspire with redemption centre operators to split money for non-existent containers.
- Dealers could begin charging consumers the container deposit on 1 November 2004, but consumers could not redeem containers until 1 January 2005. Public frustration with the program began with this delayed opportunity for container redemption. The public also became increasingly aware that they were paying handling fees that were non-refundable.
- Based on the Hawaii experience, consistency across a range of operating practices would be necessary to enable convenient redemption by consumers:
  - Consistent operating hours that allow for redemption outside the work week.
  - Ensuring sufficient processing capacity, storage space and cash 'float' for redeeming deposits to accommodate peak periods of activity and reasonable returns.
  - Tracking container and material transactions to enable verification, auditing, reconciliation of records, as well as public reporting of program activity.
- Methods of accepting and redeeming containers, especially for large numbers of containers, need to be established, including whether to limit numbers of containers redeemed at a given time. While initial rates adopted were accurate for aluminium, the rates were not accurate for plastic and glass containers. Variability in the ranges of plastic and glass containers has also resulted in consumers receiving different dollar amounts for the same number of containers.
- Competition among redemption centre operators needed to be strong to assist Hawaii in implementing the program. Officials were reluctant to strictly enforce conditions on operators out of concern that redemption centres would close and further limit redemption opportunities for consumers. This clearly sent the wrong signals to redemption centre operators.
- Public education needed to be undertaken on sufficient scale and far enough in advance of implementation to enable consumers to adjust and learn about the program. Consumers must also have convenient access to reliable, up to date information. Auditors criticised the program for focusing education on redeeming deposits to the exclusion of broader environmental messages and cited both positive and negative examples of different education programs.

Hon Mark McGowan MLA
Minister for the Environment;
Racing and Gaming

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Our Ref:

JOHN HYDE MLA
Chair, Stakeholder Advisory Group on Container Deposits
C/o - Waste Management Branch
Department of Environment and Conservation
Level 4, 168 St George's Terrace
PERTH WA 6000

Dear John

STAKEHOLDER ADVISORY GROUP ON CONTAINER DEPOSITS – REFERRAL OF ITEMS AND TIMEFRAME FOR INVESTIGATION

Please find attached three items which I refer to the Stakeholder Advisory Group for consideration:

- A submission to the WA Government on the issue of container deposits by leading beverage brand-owner Diageo;
- A copy of findings by a recent Tasmanian Parliamentary Inquiry into waste management and container deposit legislation; and
- A letter I have received from Revive Recycling, Australian agents for Tomra reverse vending machines.

I believe information contained in these documents may be of assistance to the group in recommending a container deposit scheme for Western Australia.

I have requested that the Department of Environment and Conservation commission detailed analysis of the economic impacts of introducing a container deposit scheme in Western Australia, and that this work be undertaken as soon as possible.

To ensure this work is relevant, it is necessary that the Stakeholder Advisory Group finalise its recommendations to me by December this year, so that this may inform the economic analysis.

Yours sincerely

HON MARK McGOWAN MLA
MINISTER FOR THE ENVIRONMENT;
RACING AND GAMING

26 OCT 2006

cc. Keiran McNamara, Director General
Department of Environment and Conservation

DIAGEO

Western Australia Government

Inquiry into Container Deposits

Submission from Diageo Australia Ltd

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August 2006

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Executive Summary

The government of Western Australia wants to reduce the beverage containers in waste and litter. Research suggests that, of the range of interventions available, container deposit/refund systems are consistently the best option both in terms of recovery rates and cost of operation and Diageo supports their introduction.

We at Diageo are committed to leading the alcohol beverage industry in social responsibility and strive continuously to improve our sustainability performance. For us this means a combination of initiatives, from using recycled content in packaging and ensuring that our packaging is in turn recyclable, to responsible marketing and promoting responsible drinking behaviour. It also means being proactive on issues regarding litter and away-from-home recycling – hence this submission on container deposits.

Post-consumer waste is the top environmental issue for our consumers and communities and we address the problem in our National Packaging Covenant three-year action plan. Alcohol beverage containers are currently over-represented in the litter stream in Western Australia (WA) and elsewhere and we would like to see this incidence reduced. In particular, because beverage containers consumed away from home make up 52% of the WA litter stream by volume, we want to see increased recovery in this area.

While we are ready to explore the full range of options to achieve these goals, including public place recycling (as long as any trial takes account of extrapolation costs), the evidence leads us to favour container deposits and we support the WA government's initiative to evaluate such a scheme. Container deposits (CDs) exist in many jurisdictions where Diageo operates around the world and CDs have a proven track record of increasing the recovery of beverage containers and decreasing their incidence in litter. Crucially, such a scheme can provide coverage across society and is not restricted by the provision of public place recycling systems. It provides an incentive – over and above 'doing the right thing' – for people to return containers for recycling, no matter how remote the camping trip or how long the road journey. Where people are too lazy or careless to clean up their own waste, CDs give others a reward for doing it for them, improving community amenity and driving resource recovery. Kerbside recycling does not offer all these benefits and, importantly, cannot deal with litter from away-from-home consumption.

Although data is used (and misused) on both sides of the CD debate, an emerging consensus is unmistakeable. The Productivity Commission in its recent draft report on waste management acknowledged container deposit performance. Diageo supports the introduction of a container deposit/refund scheme in Western Australia because we believe it will deliver desired results, such as improved recovery rates and reduced litter from beverage consumption away from home.

We have clear views about the design of any scheme. While a uniform national approach would be ideal, the introduction of a container deposit/refund scheme in WA should be a best practice system and Diageo would encourage the WA government to invest the time in designing such a scheme. It must be able to achieve its objectives while being efficient for business and consumers alike. It must be able to work alongside the container deposit scheme currently operating in South Australia (SA). And it should lend itself to adoption by other jurisdictions in Australia. At the same time the goal of uniformity should not excuse continuing inefficiencies of the SA model.

A best practice deposit/refund scheme should include the following:

- involve contributions from all parts of the supply chain - manufacturers, retailers, and consumers - and ensure that no one sector is unduly disadvantaged
- appropriate setting of deposit value and administration and handling fee, including use of unredeemed deposits to fund scheme administration through a centralised agency (to ensure a level playing field)
- convenient means for consumers to return containers

- uniform application of deposits on all beverage containers – no exemptions on the basis of beverage type
- least cost collection systems, including the use of automated systems
- data collection to support performance monitoring
- non-sorting by brand
- periodic reviews of scheme operation
- system improvements to ensure minimal disruption and cost.

Diageo sees environmental, social, and economic benefits – the sustainability trifecta – in finding an effective way to address the impact of post-consumer beverage containers, including those used away from home. A best-practice deposit/refund scheme will increase the recovery of containers and reduce litter for the good of the community and the environment.

Background

Diageo is the world's leading premium drinks business, with an outstanding collection of brands across spirits, wine, and beer categories. These brands include: Smirnoff, Johnnie Walker, Guinness, Baileys, J&B, Captain Morgan, Cuervo, Tanqueray, Crown Royal, and Beaulieu Vineyard and Sterling Vineyards wines.

Diageo ('dia' – from the Latin for day, 'geo' – from the Greek for world – reflecting our vision of celebrating life, every day, everywhere, responsibly) was formed in December 1997, following the merger of Guinness and GrandMet, and is headquartered in London. A truly global company, trading in over 180 markets around the world, the company is listed on both the London Stock Exchange (DGE) and the New York Stock Exchange (DEO). We employ over 20,000 people worldwide with offices in around 80 countries, and have manufacturing facilities across the globe.

In Australia, Diageo is the leading spirits and ready-to-drink (RTD) company. Our priority brands in Australia include the iconic Bundaberg Rum, the original (and Australian-born) pre-mixed spirit UDL, Johnnie Walker, Smirnoff, Baileys, and Guinness.

We operate from eight sites around the nation, employing around 590 people. Our head office is located in the Sydney suburb of Bondi Junction, with production and distribution sites at Huntingwood (NSW) and Bundaberg (Qld).

Alcohol beverages bring pleasure to millions of adults every day, all over the world, as they have done for thousands of years. Many of the brands that people enjoy are Diageo brands. We are proud of the unique part that alcohol plays in the social lives and celebrations of many cultures. Yet we also recognise that alcohol beverages may be consumed irresponsibly, creating problems for the individual and for society as a whole.

Leadership brings with it responsibility, and Diageo aspires to lead the industry in alcohol and responsibility. We are committed to driving positive change in attitudes and drinking behaviour, and to improving the sustainability of our business. For us there are direct parallels between promoting a healthier drinking culture for Australians, increasing recovery of used packaging and undertaking the preferential purchase of recycled content packaging.

As a major beverage company in Australia, Diageo applauds the Western Australian government's intention to significantly reduce and recover post-consumer waste and we welcome this opportunity to make a contribution to the Government Inquiry into Container Deposits (CDs).
We look forward to being active participants in, and supporters of, a deposit/refund scheme in Western Australia that seeks to improve resource recovery and reduce litter of beverage containers – especially for away-from-home consumption.

Nature as Model – Closing the Loop on Beverage Containers

Diageo Australia produces hundreds of millions of alcoholic beverages per annum. Intervention to drive resource recovery is needed to keep containers out of waste and litter. Only by taking action can we work to replicate natural systems and close the loop on beverage container waste.

Diageo is committed to improving our sustainability performance. This is evidenced in our attitude towards packaging. For example, all our aluminium cans, glass bottles, and cardboard cartons are recyclable. We try to purchase (wherever available) packaging made from 100% recycled materials, including cans made from 100% recycled aluminium and cartons made from 100% recycled board.

In addition to using packaging that is recyclable, Diageo is concerned with maximising recovery rates to reduce the overall impact of materials use. A greater percentage of 'closed loop recycling' reduces demand on primary resources for beverage packaging and diverts waste away from landfill disposal.

Minimising the littering of beverage packaging is also a priority for Diageo. The over-representation of alcoholic beverages in litter data, as supplied by organisations like Clean Up Australia and Keep Australia Beautiful, concerns us. For example, Clean Up Australia's 'Rubbish Reports' identifies that alcoholic beverages made up an average of 45 per cent of national beverage container litter on a count basis.[1] Keep Australia Beautiful volumetric data for Western Australia shows that beverage containers make up 52 per cent of all litter. Of this litter, alcoholic beverage containers comprise 78 per cent of glass and 60 per cent of metal beverage packaging.[2]

Litter is a multi-sided problem. Additional to environmental and aesthetic damage, litter signals where individuals opt out of a collective social contract. This negative form of social ecology is contrary to Diageo's philosophy of a healthy drinking culture. Responsible drinking is often defined as 'don't get drunk'. However, we think healthier drinking goes beyond the avoidance of high risk drinking to an increased awareness of related drinking issues. Some of these issues include being aware of consumption, the immediate drinking environment, and what to do with used containers. Littering has no place in a healthy drinking culture.

Further to the broader impacts of litter is the potential for brand erosion caused by identifiable brands in litter. Some beverage containers in litter can also reinforce stereotypes regarding the personal character (or lack thereof) of a particular consumer group, which are then transferred to the brand by association.

We collectively need to reduce litter and maximise recovery from away-from-home consumption of alcoholic beverages. Diageo is prepared to consider and support any mechanism that improves recycling rates and reduces litter. One potential mechanism that delivers this double dividend is Container Deposits (CDs).

[1] Clean up Australia (2001-2005), 'Rubbish Report', Clean Up Australia, Sydney, found online at http://www.cleanup.org.au/au/NewsandMedia/rubbish-report.html, accessed June 2006 – note that this excludes any factoring for glass pieces from alcoholic beverage containers.
[2] McGregor Tan Research (2006), 'National Litter Index Western Australia', Keep Australia Beautiful, Canberra, found online at http://www.kab.org.au/nat_li/pdf/KAB_Litter_Count_WA.pdf, accessed June 2006.

Container Deposit/Refund Systems – A Logical and Rational Intervention

Container deposits immediately raise emotional argument from both sides of the debate – often completely missing the logical and rational support for such a mechanism.

When considering arguments within the CD debate, the primary motivation for the debate should be considered. It appears that both sides support a reduction in beverage container litter and improvement in resource recovery of containers consumed away-from-home. After all, who would argue that we should have more litter or less recycling? This context is important when debating different options for delivering desired outcomes, including increased kerbside recycling, public place recycling, regulation, and incentive schemes.

Kerbside recycling makes a valuable contribution to resource recovery and Diageo applauds the efforts made by Australian jurisdictions in improving the performance of kerbside recycling. However kerbside is not a perfect system in-and-of itself. For example it does not address beverage container litter. Litter is an away-from-home activity by definition as very little litter occurs in people's literal backyards.

Additionally, kerbside recycling does not address resource recovery of containers consumed away from home. Public place recycling infrastructure with accompanying education is often presented as the solution. Putting aside considerable capital and operational costs of public-place recycling, no incentive is provided (other than civic duty) for people to correctly use the recycling bins provided. Accompanying regulation and enforcement is required to ensure that people use the recycling facilities correctly and do not litter.

However, instead of educating and regulating to change attitudes and behaviour in using public place recycling, a more ecological approach would be systemic behavioural change through an immediate motivator, in this case the refund of a monetary deposit. Changing consumer behaviour this way also provides the action learning that will result in changed attitudes.

Diageo prefers this style of incentive based approach. Deposits provide consumers an incentive to return their beverage containers for recycling as opposed to externalising end-of-life management costs of litter and waste onto broader society. The 'waste' beverage container now has a direct value. Container deposits thus increase recovery of wasted beverage containers and reduce litter.

The fact that deposit/refund systems achieve this 'double dividend' is not in dispute. Even the Productivity Commission recognises that CDs achieve 'improved recovery of beverage containers' and 'reduced beverage container litter'.[3] However Diageo would disagree with the Commission's negative conclusion on container deposit effectiveness. We would highlight that:

- kerbside recycling does not cover resource recovery from public place consumption
- schemes that seek to minimise the litter of beverage containers should not be assessed as a mechanism to cover all litter
- volumetric based assessments of litter data (as opposed to single item counts) reveal that beverage containers comprise over half of the litter stream, except in South Australia (a CDL state), where beverage container litter is less than 20 per cent[4]
- implementing an alternative system to CDs has significant cost, such as public-place recycling infrastructure, education and regulation with its associated requirements for increased litter inspectors, deficiencies of 'hit and miss' enforcement, and follow up prosecutions (penalty deterrence is not enough to change behaviour).

[3] Productivity Commission (2006), 'Waste Management Productivity Commission Draft Report', Productivity Commission, Melbourne, found online at www.pc.gov.au, accessed June 2006.
[4] McGregor Tan Research (2006), 'National Litter Index Western Australia', Keep Australia Beautiful, Canberra, found online at http://www.kab.org.au/nat%5Fli/pdf/KAB_Litter_Count_SA.pdf, accessed June 2006.

From Diageo's perspective it is clear that container deposit/refund systems have a proven track record in reducing beverage container litter and increasing the recovery of containers consumed away from home. Issues regarding the cost effectiveness of CD systems are of importance as design considerations for Western Australia when deciding between different models of operation. Further comment on the performance of container deposits and best practice elements for deposit/refund system implementation is provided in the following sections.

Observations from Around the World – Container Deposits in Action

Diageo operates in many jurisdictions around the world that operate some form of container deposit. It is the only proven mechanism that consistently returns high recovery rates and low litter of beverage containers.

Container deposits have proved effective in encouraging recycling around the world. Available data shows significant recovery levels for containers which carry a deposit, with actual recovery rates varying from location to location.[5]

In Denmark, recovery rates of glass containers covered by CDL are over 90 per cent. For other glassware collected through other means, the return rate is estimated to be under 65 per cent. This compares to significantly lower return rates for states in the US with only kerbside recycling. One study put the overall recovery rate at 18.5 per cent for those US states without CDL.[6]

A study conducted by Felder and Morawski (2003)[7], suggests a strong correlation between the deposit refund value and container recovery rate. For example, an analysis of international recovery rates indicates that an increase of refund value from five cents to ten cents would result in an increase in recovery rates of between 6.7 to 15.1 per cent. Felder and Morawski do, however, acknowledge the impact of non-economic considerations including:

- method of return - return to retail and/or return to depot
- whether or not the material is a 'traditional beverage material' – for example glass, aluminium or PET
- duration of program – whether the program had been in place for more than a decade with a high level of education/public awareness
- where beverages are consumed – whether at home or away from home.

A summary of the deposit amounts assigned to beverage containers in container deposit schemes around the world is presented in Appendix 1. There are three main types of approaches to assigning deposit values:

- all containers are given the same value
- containers for different beverage types and/or volumes are given different values
- manufacturers can assign their own value to containers, above a certain minimum.

Charges are typically relatively low, in most places five to ten cents. The highest charges are in Sweden where a refillable plastic bottle has a deposit of 4,00 kr. (A$0.75), and one litre recyclable bottles carry deposits of A$0.40.

[5] This data is presented as Appendix 1 to this report. One exception to the higher performance trend of CDL states is Delaware, which has lower recovery rates.
[6] Beck, R.W. (2002), 'Understanding Beverage Container Recycling: A Value Chain Assessment', Businesses and Environmentalists Allied for Recycling (BEAR), found online at http://www.globalgreen.org/bear/Projects/FinalReport.pdf, accessed June 2006.
[7] M. Felder and C. Morawski (2003), 'Evaluating the Relationship Between Refund Values and Beverage Container Recovery', Report Prepared for the Beverage Container Management Board, found online at http://www.bottlebill.org/assets/pdfs/legislation/deposit%20levels.pdf, accessed June 2003.

Most deposit/refund schemes, such as those for Hawaii, New York, Connecticut and Saskatchewan impose a handling fee (either a set fee or a variable fee dependent on its being offset by both material sales and / or unredeemed deposits returned to the system) in addition to the deposit amount. The deposit amount is returned to the purchaser, whilst the handling fee is used to pay recyclers, processing centre operations, or other aspects of running the scheme. In Norway, an additional product charge is levied, with the charges being inversely proportional to the return rate (the lower the return rate, the higher the tax).

In other states revenue generated by unredeemed deposits is used (in part or full) to fund the schemes. In Michigan, for example, 25% of unredeemed deposits are returned to retailers and the remaining 75% is deposited into the Cleanup and Redevelopment Trust Fund. In New Brunswick, Canada, half goes to the beverage industry to subsidise its container management system and the other half goes to the Environmental Trust Fund to promote waste reduction through environmental education and administration of the Beverage Containers Program.

Little information is available on the detailed operating costs of individual deposit/refund schemes, however the BEAR report 'Understanding Beverage Container Recycling'[8] compares various generic approaches and costs for beverage container recovery. Specific details on the Californian model were also included, where estimates of gross collection and intermediate processing costs were about 1.62 cents per container, or 0.55 cents per container if revenue from material sales is included.[9]

Refund procedures also vary widely from place to place. Typically one or both of two methods of return are used. The first is through the beverage retailer collecting containers and returning deposits to customers. Containers are then collected from the retailer by either beverage suppliers, or collection centres that sort and may also reprocess containers. Typically the retailer will get to keep some or all of the handling fee. The second method of return is direct to a sorting/processing depot. In European countries vending machines are often used to provide refunds. These machines are able to read bar codes or scan for size or weight of the containers to determine whether they are eligible for a certain refund.

South Australia is the only Australian jurisdiction that has container deposit legislation (CDL). In addition to the low level of beverage container litter cited in the previous section, SA recovers:[10]

- at least one third more aluminium cans than other States in Australia
- 85% of non refillable glass soft drink bottles, compared with 36% nationally
- 84% of cans marketed in the State compared with 63% nationally
- 74% of PET containers compared to 36% nationally.

When presented with the choice of returning beverage containers to obtain deposits versus placing them in kerbside recycling, respondents to a study on the effectiveness of CDL in South Australia indicated that most (60%) returned beverage containers to collection/recycling depots, while nearly one third (32%) recycled the containers in kerbside recycling bins/crates instead of collecting the refund.[11] Only four per cent of respondents claimed to forego deposits by throwing empty beverage containers into garbage bins.

The international and national experience suggests that recovery rates are higher in those jurisdictions with container deposits and that an increased deposit amount will achieve a higher rate of recovery. Operational costs are more difficult to compare, however anecdotal evidence suggests that the mechanism for refunding deposits (manual or automatic) and the fate of unredeemed deposits are important factors. A review of the SA CDL model may ensure that improvements are made to any container deposit system implemented in WA.

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[8] Beck, R.W. (2002), 'Understanding Beverage Container Recycling: A Value Chain Assessment', Businesses and Environmentalists Allied for Recycling (BEAR), found online at http://www.globalgreen.org/bear/Projects/FinalReport.pdf, accessed June 2006.

[9] These are system operating costs based on a weighted-average for all material types, including the operations of redemption centres and administrative costs. It should also be noted that unredeemed deposits were not factored into these costs. With unredeemed deposits the BEAR report identifies that the Californian model is cost negative.

[10] Recyclers of South Australia (undated), 'Container Deposit Legislation is Effective', found online at http://www.recyclesa.com.au/CDLeffective.htm, accessed June 2006.

[11] McGregor Tan Research (2003), 'Community awareness and acceptance of Container Deposit Legislation', Environment Protection Authority South Australia, found online at http://www.epa.sa.gov.au/pdfs/cdl_survey.pdf, accessed June 2006.

Note of Caution – Need for Improvement on the SA Model

South Australia showed great foresight in implementing a container deposit scheme some 30 years ago. Now, however, there are improved models of operation that can overcome some of the specific SA shortcomings.

The South Australian CDL scheme has been in operation for nearly 30 years. The fact that this scheme works and does so alongside kerbside recycling is proof positive that container deposits will work in WA. This provides certainty that WA consumers will participate in the scheme, beverage container litter will go down and the recovery of beverage containers will go up. However, rather than directly replicating SA's model in WA, Diageo recommends that the WA government take the opportunity to improve on some aspects of the SA container deposit scheme.

Some of the positive features of the SA scheme include:

- proven track record of increasing beverage container recovery and decreasing litter
- functions alongside kerbside recycling
- reduction of glass collected in kerbside recycling reduces glass fine contaminations and increases compactability of collected materials. This leads to better quality recyclate and increased operation efficiency (more houses serviced per recycling truck)
- opportunities to support charities, such as Scouts
- changes community psychology of viewing packaging as waste.

The primary challenge for the WA government will be overcoming some of the inefficiencies that have developed in SA. For example:

- sorting by brand so that 'Super Collectors' can act as agents for beverage manufacturers adds unnecessary cost (high handling fees) and complexity to the handling of returned containers
- manual operation of collection points (as opposed to automated facilities) further adds to handling costs (however it is noted that there is a community benefit where depots are operated voluntarily by organisations such as Scouts – sufficient flexibility to allow such benefits without hampering the overall efficiency of the scheme would be ideal)
- unredeemed deposits are not used collectively to offset the operation of the scheme
- exemptions and size restrictions (for example wine, plain milk, fruit juice, and flavoured milk in containers greater than one litre) can slightly distort the market to prefer a certain size of packaging and beverage type
- ease of access to collection depots could be improved (more depots with greater availability).

It will be important for WA to ensure that any deposit/refund scheme chosen for implementation addresses the listed shortcomings of the SA scheme. For example, Diageo would prefer a system that treated all container and beverage types equitably.

However, at the same time it is equally important to ensure that 'improvements' to the model do not create two divergent container deposit schemes in the Australian market. This could occur if there was no uniformity on deposit amounts and labelling requirements. Special effort should be made to ensure that both schemes are consistent and that flexibility is maintained to facilitate other states implementing a similar container deposit program.

Recommendations for Implementation of Best-Practice Deposit/Refund Model

The Government of Western Australia has the opportunity to create a double dividend of improved environmental outcomes and economic growth through the implementation of a container deposit/refund scheme. Diageo recommends a best-practice model to ensure that these objectives are met at least cost and disruption to beverage businesses.

A best-practice model of container deposit/refund operation has the potential to not only increase the recovery of beverage containers and reduce litter, but also to contribute to economic growth in WA through an increase in collection and recovery infrastructure, as well as additional employment. Diageo recommends incorporating the following 'best practice' elements into the WA container deposit scheme:

- inclusion of all elements of the supply chain – principles of product stewardship suggest that all players in the supply chain, from manufacturer to retailer to consumer, have a role to play in improving sustainability outcomes. Any deposit/refund operation should reflect this principle and ensure that no one part of the supply chain is unduly disadvantaged
- consumer convenience for returning containers – this could be achieved through a combination of extended access for redemption services (or some other appropriate availability in regional areas); proximity of depots or reverse vending machines to population centres, and proximity to where people are active and already using transport (for example shopping centre or council facility car parks)
- appropriate setting of deposit amount – consideration should be given to setting a deposit amount that will provide an appropriate incentive for action in recovering beverage containers consumed away from home, and minimising litter of beverage containers, while at the same time minimising financial impacts along the supply chain
- use unredeemed deposits to help fund scheme administration – any deposits not redeemed should be used to fund the overall operation of the scheme, for example by paying handling fees and administration costs
- administration of scheme through a centralised agency – a centralised agency could manage deposit collection, minimise handling fees (such as removing the need for brand sorting and 'inversely' pegging fees to commodity price movements), prevent duplication of administration and use unredeemed deposits to offset handling fees. Such an arrangement should be business oriented and drive towards least operating cost
- least cost collection systems – the operation of collection facilities should be designed to maximise consumer convenience while minimising operational costs. The use of automated collection machines (reverse vending machines or RVMs) in combination with depots operated voluntarily by organisations such as the Scouts should be considered
- ability to interact with SA – the WA scheme should be able to integrate with the existing SA scheme. Factors to address include approval process for labels, minimising changes (current and future) to labels, and scheme deposit amounts
- uniform application of deposits
- data collection of return rates – one of the advantages of a centralised agency is the ability to collect good data on system performance. Good data is essential to underpin the efficient operation of a deposit/refund scheme
- ongoing review of scheme operation – as part of collecting good quality data it is recommended that scheme performance is made publicly available and that a formalised review process is created to ensure that the objectives of the CD scheme are being met
- other system improvements – a number of criticisms of CDL schemes advanced by critics are not without merit. However, rather than interpret these issues as reasons for not introducing container deposits, Diageo recommends that they be interpreted as list of needed improvements to the operation of a successful deposit/refund scheme.

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Acknowledgements

Diageo acknowledges the assistance of Warnken ISE in preparing this submission.

Diageo consulted with a wide group of key stakeholders in preparing this submission. Their feedback used in shaping this submission, and comments on an earlier draft, are very much appreciated.

Appendix 1 – International Technical Data on Container Deposit Schemes

A wide-spread internet search was conducted with the aim of determining the international effectiveness of container deposit/refund schemes in encouraging recovery of beverage containers. Particular aims of the review were to try and obtain up-to-date information presented on both websites and in previous studies done on the effectiveness of CDs (much of the available data is more than four years old) and to find primary source data (for example, direct from the environmental authority responsible for administering the scheme).

Where primary information less than four years old was not available, other sources were consulted. A significant amount of information has been collated by interest groups, such as the Container Recycling Institute's Bottle Bill Resource Guide (http://www.bottlebill.org/ and http://www.container-recycling.org/) and the Grassroots Recycling Network (http://www.grn.org). Two significant limitations are identified with the use of these information sources. Firstly, it is acknowledged that they are set up with the primary aim of promoting the establishment of container deposit/refund schemes. Secondly, most of the data concerning the recovery rates is presented without a reference, so it is difficult to confirm the accuracy of the data or the year in which it was collated. However, given the general difficulty in obtaining information on the performance of recovery systems, it is suggested that these sources are better than no information.

Table 1 below shows the recovery rates of beverage containers in those jurisdictions which have some type of container deposit/refund scheme. In order to give an indication of data age and quality, the following colour key is used in the table:
Recent performance data (2003 to 2006),
Data from before 2003,
Year of applicability unknown and/or information obtained from interest group website.

From the table it is clear that little recent data is available. It is noted, however, that the trends indicated by the data are still valid. Deposit amounts have been left in their original currencies as conversion to Australian cents would be relatively meaningless given the low numbers being reported.

Table 1 – Summary of Deposit Amounts and Return Rates from Container Deposit/Refund Schemes around the World

Scheme	Deposit Amount	Return Rates[12]	Reference (Deposits)	Reference (Return Rates)
South Australia	Category A container [13] – A$0.10 Category B container [14] – A$0.05	Non-refillable glass soft drink bottles – 85% Cans marketed in SA - 84% PET - 74% Liquid Paperboard - 40%	http://www.epa.sa.gov.au/pdfs/cdl_collection.pdf	http://www.recyclesa.com.au/CDLeffective.htm
Alberta (Canada)	<1 litre – C$0.05 >1 litre - C$0.20 All beer containers – C$0.10	Non-beer aluminum- 80.59% Beer aluminum - 91.00% Plastics - 70.06% Non-beer glass - 78.78% Domestic beer glass - 96.27% Import beer glass - 93.85 Polycoat - 56.89% Bi-metal - 55.68%.	http://www.grrn.org/beverage/deposits/alberta.html	http://www.bcmb.ab.ca/2004_sales.html
British Columbia (Canada)	Non-alcoholic containers: <1 litre – C$ 0.05 >1 litre - C$ 0.20 Alcoholic containers: <1 litre - C$ 0.10, >1 litre - C$ 0.20	Non-alcohol glass – 58% Liquor glass (excl beer) – 87% Non-alcohol aluminum – 83% Beer aluminum – 94% Non-alcohol plastics - 72% Liquor plastics – 76% Refillable beer bottles – 92%	http://www.qp.gov.bc.ca/statreg/reg/E/EnvMgmt/449_2004.htm	Who Pays What - An Analysis of Beverage Container Recovery and Costs in Canada 2001-2002. [15]

[12] Key to data sources for return rates:
Recent performance data (2003 to 2006),
Data from before 2003,
Year of applicability unknown and/or information obtained from lobbying group website
[13] Redeemed at the point of sale
[14] May not be sold unless a retailer's premises are situated within a collection area which includes an approved collection depot for the collection of the particular class of container.
[15] Morawski, C., (2003). Who Pays What - An Analysis of Beverage Container Recovery and Costs in Canada 2001-2002. Found online at http://www.bottlebill.org/assets/pdfs/legislation/WPW_FINAL_REPORT.pdf, accessed June 2006.

Saskatchewan (Canada)	Metal Cans & Plastic Bottles < 1 litre C$ 0.10 1L & over C$ 0.20 Glass Bottles up to 300 ml - C$ 0.10 301 - 999 ml – C$ 0.20 1L & over - C$ 0.40 Other Juice Boxes & Cartons (all sizes) - C$ 0.05 Refillable Beer Bottles (all sizes) - C$ 0.04 In addition there is an Environmental Handling Charge[16]: Metal Cans - C$ 0.05 Plastic Bottles - C$ 0.06 Glass Bottles - C$ 0.07 Juice Boxes – C$ 0.03	Glass – 82% PET – 80% Aluminum – 90% Refillable beer bottles – 95%	http://www.sarcsarcan.ca/depositrefunds.htm	Who Pays What - An Analysis of Beverage Container Recovery and Costs in Canada 2001-2002.
Quebec (Canada)	≤ 450 ml minimum C$ 0.05 > 450 ml C$ 0.20 Handling fees C$ 0.02 per container. For refillable beer bottles: ≤ 450 ml $1.20 per dozen > 450 ml C$ 0.20	Glass - 73% PET – 74% Aluminum – 76%	http://www.bottlebill.org/legislation/canada/que.htm	Who Pays What - An Analysis of Beverage Container Recovery and Costs in Canada 2001-2002.
New Brunswick (Canada)	Non-alcoholic beverages – C$0.10 Alcoholic beverages: <500 ml – C$ 0.10 >500 ml – C$ 0.20 Handling fee of C$ 0.03	Non-alcoholic glass – 76% Alcoholic glass – 77% PET – 71% Aluminum – 78%	http://www.geocities.com/RainForest/vines/6156/cdndepos.htm#NS	Who Pays What - An Analysis of Beverage Container Recovery and Costs in Canada 2001-2002.

[16] This covers the cost of running reprocessing centres, see http://www.sarcsarcan.ca/depositrefunds.htm for more detail

Nova Scotia (Canada)	Non-liquor, non-refillable C$ 0.05 Non-liquor, refillable C$ 0.10 Refill liquor <1L C$ 0.08 Refill liquor >1L C$ 0.20 Non-refill liquor < 500ml C$ 0.05 Non-refill liquor > 500ml C$ 0.10	Glass - 84% PET – 85% Aluminum – 79%	http://www.bottlebill.org/legislation/canada/nova.htm	Who Pays What - An Analysis of Beverage Container Recovery and Costs in Canada 2001-2002.
California (US)	< 24 oz – US$0.04 > 24 oz – US$0.08	Aluminium – 73% Glass - 65% PET – 46% HDPE – 149% PVC – 6% PP – 1% Bimetal – 8% Overall – 62%	http://www.consrv.ca.gov/dor/index.htm	http://www.consrv.ca.gov/dor/Notices/Images/Biannual506.pdf
Connecticut (US)	US$ 0.05 for each container of beer or carbonated soft drink (including mineral waters and soda waters). Handling fee of .015 for each beer container and .02 for each carbonated soft drink	no data found	http://www.dep.state.ct.us/wst/recycle/bbfaq.htm	
Delaware (US)	US$ 0.05 and a US$ 0.01 handling fee	Soft drinks in glass and PET – 30% Beer glass one way – 37% Beer glass refill – 80%	http://www.dnrec.state.de.us/dnrec2000/divisions/awm/hw/sw/guides/bottlebill.htm	http://www.dnrec.delaware.gov/NR/rdonlyres/BB472D80-ECCC-4397-9EAF-B7BE6A544A9E/42/FranklinAssociates.PDF
Hawaii (US)	US$ 0.05 on all containers. There is also a US$0.01 handling fee paid on top of this which is non-refundable.	In the year 2004-05 (1/7/04 to 30/6/05) overall recycling rates were 41% From 1/7/05 to 31/3/06 the indicative rate was 71%	http://www.hi5deposit.com/	http://www.hi5deposit.com
Iowa (US)	US$ 0.05 on all containers, handling fee US$ 0.01	Overall 92%	http://www.iowadnr.com/waste/recycling/bottle.html	http://www.iowadnr.com/waste/recycling/bottle.html

Maine (US)	US$ 0.015 for wine and spirits containers of greater than 50 ml At least US$ 0.05 for all other containers	No data found	http://janus.state.me.us/legis/statutes/32/title32sec1863-A.html	
Massachusetts (US)	At least US$ 0.05 cents per container. The value may be more on some containers. Handling fee of US$ 0.0225	Overall 68.6%	http://www.mass.gov/dep/recycle/reduce/bbillcon.htm	http://www.bottlebill.org/legislation/usa_deposit.htm
Michigan (US)	US$ 0.10	Overall 97.3%	http://www.deq.state.mi.us/documents/deq-wmd-swp-mibottledepositlawFAQ1.pdf	http://www.deq.state.mi.us/documents/deq-wmd-swp-mibottledepositlawFAQ1.pdf
New York (US)	Manufacturers determine the amount of the deposit. The deposit must be at least US$ 0.05. There is also a handling fee of US$0.02 per container.	Overall – 69.2% Beer containers – 80% Soft drink containers – 58% Wine product containers – 59%	http://www.dec.state.ny.us/website/dshm/redrecy/rca.htm	http://www.dec.state.ny.us/website/dshm/redrecy/0304rpt.pdf
Oregon (US)	Most containers carry a US$ 0.05 refund value.	Overall 84%	http://www.deq.state.or.us/	http://www.container-recycling.org/papers/OregonBB30.pdf
Vermont (US)	Liquor > 50 ml US$ 0.15 Other containers US$ 0.05	Overall 90-95%	http://www.bottlebill.org/legislation/usa/vt.htm	http://www.bottlebill.org/legislation/usa_deposit.htm
Austria	Refillable PET: U.S. $0.40	Cans 60% One-way PET 30%	http://www.bottlebill.org/legislation/world/austria.htm	http://www.bottlebill.org/legislation/world/austria.htm
Belgium	Voluntary charges if refillable: < 50 ml - US$ 0.12 > 50 ml - US$ 0.24 If not refillable then US$ 0.52 per liter	No data found	http://www.bottlebill.org/legislation/world/belgium.htm	
Denmark	< 50 ml - DKK 1.25 For large containers - 2.5 to 4 DKK/container.	Estimated 99% for containers of beers and carbonated soft drinks. Almost 90% for containers of wine and spirits that are covered by a voluntary deposit-refund system.	http://www.mst.dk/default.asp?Sub=http://www.mst.dk/udgiv/publications/2000/87-7909-568-2/html/kap08_eng.htm	http://www.mst.dk/default.asp?Sub=http://www.mst.dk/udgiv/publications/2000/87-7909-568-2/html/kap08_eng.htm

Finland	U.S. $0.11 U.S. $0.45 for larger sizes	One-way containers 75% (overall) ; Liquor 72%; Wine 75%; Imported Beer 50%; Refillables 95-98% (overall)	http://www.bottlebill.org/legislation/world/finland.htm	http://www.bottlebill.org/legislation/world/finland.htm
Germany	€ 0.25	Overall beverage 63.5% Glass 83% Aluminium 71%	http://www.bmu.de/english/waste_management/general_information/doc/35155.php	http://www.bmu.de/english/waste_management/latest/doc/36891.php
Netherlands	PET and glass: < 0.5 liters US$ 0.16 > 0.5 liters US$ 0.72	Refillable glass 98% Refillable PET 99%	http://www.bottlebill.org/legislation/world/netherlands.htm	http://bottlebill.org/legislation/world/netherlands.htm
Norway	< 500 ml - US$ 0.16 > 500 ml - US$ 0.40 All one-way beverage containers also carry a tax of NOK 0,70. Additionally, there is a product charge on all one-way and refillable beverage containers. The full product charge is applied to containers with return rates below 25%. Return rates between 25% and 95% are charged a tax that is inversely proportional to the return rate (the lower the return rate, the higher the tax). Containers reaching return rates above 95% are exempt from the tax. The product charges are as follows: Beer/Soft Drink US$ 0.48 Noncarbonated beverages US$ 0.04 Members of Norsk Glassgjenvinning A/S pay a voluntary recycling fee of NOK 0,06 to NOK 0,15 for each glass container they sell. The glass is collected in special bins and recycled at a central location. As a result, members receive a 75% reduction in the product charge.	Overall 93%	http://www.bottlebill.org/legislation/world/norway.htm	http://www.sft.no/nyheter/brev/drikkevareretur_resirk120504.htm

Sweden [17,18]	Recyclable Plastic Bottles: < 1litre - 1 kr. >1 litre – 2kr. Cans – 0.50 kr. Glass: 33 ml refillable bottles – 0.60 kr, 22:40 kr. on crates 50 ml bottles – 0.90 kr., and 28 kr. on crates Refillable Plastic Bottles - 4,00 kr. and trays 22,40 kr. - 44,80 kr depending on the type of tray	Recyclable Plastic Bottles - 80% Cans - 86%. Glass: 33 cl refillable system - 99% 50 cl refillable system - 90% Refillable plastic bottles - 98%.	http://www.sverigesbryggerier.se/eng/emballage/plastflaskor.htm, http://www.sverigesbryggerier.se/eng/emballage/returburkar.htm, http://www.sverigesbryggerier.se/eng/emballage/glasflaskor.htm	http://www.sverigesbryggerier.se/eng/emballage/plastflaskor.htm, http://www.sverigesbryggerier.se/eng/emballage/returburkar.htm, http://www.sverigesbryggerier.se/eng/emballage/glasflaskor.htm
Switzerland	CHF 0.02, 0.04, or 0.06, depending on the size of the bottle	Glass one-way - 72% Glass refillable - 95 – 98% Aluminum - 68% PET one-way - 53% PET refillable- >70% Steel cans - 35%	http://www.umwelt-schweiz.ch/buwal/eng/fachgebiete/fg_abfall/abfallwegweiser/glasverpackungen/index.html	http://www.bottlebill.org/legislation/world/switzerland.htm

[17] All the indicated deposit amounts include VAT
[18] For refillable plastic and glass bottles a deposit is also charged on the crates used for delivery.


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2006

Parliament of Tasmania

JOINT STANDING COMMITTEE

ENVIRONMENT, RESOURCES AND DEVELOPMENT

WASTE MANAGEMENT IN TASMANIA

Members of the Committee

Mr Peter Gutwein MHA
Mr Paul Harriss MLC
Ms Michelle O'Byrne MHA (Deputy Chair)
Mr Graeme Sturges MHA
Mr Greg Hall MLC (Chair)
Mr Nick McKim MHA
Mrs Tania Rattray-Wagner MLC
Ms Lin Thorp MLC

Secretary: Mrs Sue McLeod

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Introduction

1.1 APPOINTMENT AND TERMS OF REFERENCE

The Joint Standing Committee on Environment, Resources and Development was re-established following a trial period from 7 April 2004 and again on 30 May 2006 following the State Election on 18 March. The Committee adopted the following terms of reference at its meeting on 15 June 2004.

To investigate and make recommendations to the Government concerning domestic, industrial and hazardous waste management, with particular reference to -

(1) whether Tasmania should implement container deposit legislation;
(2) impediments and incentives to reduce the generation of waste and in dealing with residues;
(3) present methods of waste management in Tasmania including regional waste management strategies;
(4) projected methods of waste management in Tasmania compared with world's best practice;
(5) the development of a future waste management strategy;
(6) measures to educate and involve the community and Local Government in future strategy development and implementation;
(7) and any matter incidental thereto.

The membership of the Committee currently consists of four members of the Legislative Council – Mr Hall (Chairman), Mr Harriss, Mrs Rattray-Wagner and Ms Thorp; and four members of the House of Assembly – Mr Gutwein, Mr McKim, Ms O'Byrne and Mr Sturges.

The Committee has general jurisdiction over the following areas : Government Business Enterprises; regulation of business, commercial and industrial relations; economic and finance development; environment and land use planning; natural resources – forestry, mining and fisheries; energy; tourism; transport; and primary industry.

This is the final report in relation to Waste Management in Tasmania and will address all the terms of reference relating to domestic, industrial and hazardous waste.

1.2 PROCEEDINGS

Advertisements were placed in the three regional daily newspapers calling for submissions and evidence regarding the Committee's full terms of reference on waste management.

Thirteen witnesses gave verbal evidence to the Committee in Hobart and are

listed in Appendix 1. Twenty-two written submissions were received and are listed in Appendix 2. Documents received into evidence are listed in Appendix 3.

The Committee commenced public hearings in Hobart on Thursday, 21 April 2005. Further hearings were held in Hobart on 21 November 2005. Site visits to several waste management centres in Tasmania were undertaken to enable Members to gain an understanding of the facilities available.

Some Members of the Committee travelled interstate to Sydney, Adelaide and Perth during the June 2005 committee week. Meetings were held in these states with senior waste management officers in relation to their overall waste management strategy, including container deposit legislation. Members also took the opportunity to visit sites involving domestic, commercial and hazardous waste disposal, including recycling activities.

Some Members of the Committee also travelled interstate in September 2005 to Melbourne, Brisbane and the ACT. Similarly, meetings were held with senior officers regarding each state and territory's waste management strategy and site visits were also undertaken.

1.3 ACKNOWLEDGEMENTS

The Committee acknowledges and thanks all those who contributed to this report and particularly those officers interstate who gave such valuable information to the Committee and co-operated with its task.

The contribution made by former Members of the Committee - Doug Parkinson MLC (former Chairman), Sue Smith MLC, David Bartlett MHA and Jeremy Rockliff MHA, is also acknowledged.

The Committee gives special thanks to the Clerk of Committees, Mrs Sue McLeod and her Executive Assistant, Miss Julie Thompson, whose dedication and ability to assist the Committee in organising its tasks were invaluable.

Glossary of Terms

CDL	**Container Deposit Legislation**
EPA	**Environment Protection Agency**
EPR	**Extended Producer Responsibility**
PCA	**Packaging Council of Australia**
BIEC	**Beverage Industry Environment Council**
EPHC	**Environment Protection and Heritage Council**
EMPCA	***Environmental Management and Pollution Control Act 1994***
MRF	**Materials Recovery Facility**

Executive Summary

During recent decades, rates of consumption and consumerism have been steadily rising. While sustained economic growth has led to unprecedented prosperity for many, the associated growth in consumption is having a significant environmental impact. Waste management is a major issue Australia wide and it is clear that it remains so in Tasmania, despite increased participation rates in kerbside recycling and increasing public awareness of waste management issues.

In relation to the current system of waste management in Tasmania, there are a number of points made by the Committee. The relationship between State Government and local councils is currently well defined, though Government policy is generally focused on national schemes. Nevertheless, there are some issues with the current operation of the regional waste management system and overall there are a number of actions to be taken to ensure that Tasmania's waste management system is effective.

An audit of Tasmania's existing landfill and transfer station infrastructure and their operation is required to ensure that they are sufficient for both current and expected demand. It is clear that the disposal of hazardous waste creates many challenges and in some instances appropriate standards are not being achieved, and this needs to be addressed.

Although waste management is both an environmental and an economic issue for government, it is primarily an economic issue for businesses and other significant generators of waste, and any discussion of waste management needs to recognise this fact. Furthermore, given that very few of the goods consumed in Tasmania are in fact manufactured in the state, the potential for State regulation at the producer end of the chain is minimal. Waste management in Tasmania must therefore focus primarily on later stages, starting with reuse and recycling.

Container deposit legislation is often suggested as a way to increase rates of recycling and decrease littering. While these outcomes are desirable, the Committee is concerned about the impact the introduction of CDL would have on kerbside recycling. This is currently unknown and should be quantified before such a system could be implemented. The introduction of some form of extended producer responsibility, to cover a broader percentage of the litter stream, should also be investigated but any such system would be restricted by the size of Tasmania's manufacturing industry.

There are a number of impediments, particularly economic ones, to the effective management of waste in Tasmania. A state waste levy would be a significant step towards the resolution of this problem, as it would reduce the desirability of landfill as a waste disposal method and thus increase the incentive to find alternatives. Funding is also a major issue for Tasmanian waste management and the introduction of a waste levy could assist in

funding the functions of an Environment Protection Agency (EPA) and other waste management projects.

Such a levy could also be used to fund education measures, starting in early schooling and extending to all levels of education, with the aim of increasing awareness of waste management issues as well as increasing rates of resource recovery and recycling. Children can change the prevailing attitudes in their homes and thus early education has a flow-on effect. Cultural attitudes are crucial and education, particularly if it begins early, will assist the move towards better waste management. Cultural attitudes can be seen to be changing in relation to the issue of plastic bag usage, which has had prominence in the community over recent years. The Committee suggests that plastic shopping bags should be levied rather than banned as a way of reducing their usage.

The Committee believes that a whole-of-government approach should be taken to minimise waste generation and the impacts of government waste. All levels of government should lead by example by developing programs for reuse and recycling of materials that could then be transplanted into other areas.

Awareness of waste management issues is increasing. However, there is still a way to go, with Tasmanian waste diversion rates at half the national average and Government has a significant role to play in encouraging the adoption of waste minimisation and recycling techniques across the board. Numerous steps can be taken to improve Tasmania's waste management practices which**,** while not having an immediate significant effect on citizens' everyday lives**,** will greatly reduce the environmental impacts of increased consumption and waste requiring disposal.

18 October 2006

Greg Hall MLC
Chairman

Recommendations

The Committee recommends :

1. That the State Government introduce a container deposit system in Tasmania, subject to its viability and effectiveness being supported by a cost benefit analysis.

2. The implementation of a State waste levy. Administrative issues will need to be addressed with the Premier's Local Government Council.

3. That the Tasmanian Government introduce a levy on plastic HDPE shopping bags.

4. The State Government initiate a whole-of-government environmental audit, including an analysis of government procurement policies, to make recommendations to minimise waste generation, maximise the use of recycled products (i.e. paper), and minimise the environmental, social and economic impacts of disposal of government waste.

5. The Tasmanian Government investigate Extended Producer Responsibility (EPR) models with a view to understanding the impact of a national EPR system on Tasmania.

6. The Tasmanian Government audit existing landfill sites and transfer stations with a view to ensuring that infrastructure and practices are upgraded where necessary, particularly in areas such as OH&S, security and ensuring that prohibited and hazardous wastes and recyclables are not disposed of in Tasmania's landfill sites.

7. That a strategy, including a public education program be developed to maximise the deferral of reusables and recyclables from the waste stream and to improve the quality of recovered and recycled waste.

Container Deposit Legislation Chapter 1

Background

In the 1970s when non-refillable containers were introduced by the beverage industry, they became a visible part of the litter scene and were seen as a threat to the environment. In 1975 the South Australian Government introduced the *Beverage Container Act* to deal with this threat of litter from containers.

The South Australian Government extended the container deposit legislation in 2003 to include a wider range of beverage types and containers, including flavoured milk and fruit juice in containers of less than one litre and all non-carbonated soft drinks in containers of three litres or less. Some existing exemptions were also repealed.[1]

"Container deposit legislation (CDL) operates by having a small deposit on drink containers, such as cans and bottles. When a person takes cans or bottles to a depot they can redeem the deposit. The deposit is funded by the drink manufacturers and is incorporated into the cost of the beverage shelf price. The concept is that people will be more likely to bring drink containers to depots for recycling as they are worth money".[2]

Proponents of CDL believe that a refundable deposit on beverage containers will increase recycling rates and reduce the numbers that are littered, as people will be more inclined to pick them up.

"It is also argued that beverage containers collected through kerbside recycling will be more valuable, therefore off-setting some of the cost to local governments of providing kerbside recycling collection".[3]

Those against CDL argue that it will become "… another layer of legislation that will hinder industry and burden taxpayers in administration costs. It is also argued that these costs will not be offset by environmental benefits (such as increased recycling rates, reduced waste to landfill and a reduction in litter) as beverage containers only make up a very small percentage of the waste and litter streams".[4]

INTERSTATE EVIDENCE

Some Members of the Committee travelled to New South Wales, South Australia, Western Australia, Victoria, Queensland and the Australian Capital Territory and met with senior officers in relation to container deposit legislation

[1] Environment Protection Authority – Community awareness and acceptance of Container Deposit Legislation.
[2] Waste Wise WA 68
[3] Waste Wise WA 69
[4] Waste Wise WA 70

and waste management generally. Members also visited many waste management sites, including recycling centres interstate and collection depots in South Australia.

The views obtained during these visits, as well as information sourced from relevant studies, are outlined below.

South Australia

Members met with Vaughan Levitzke, Steve Smith and Andrea Woods in relation to container deposit legislation and the waste strategy in South Australia.

South Australia is the "… only State in Australia to enact [CDL] and there is a pretty strong lobby group throughout Australia to prevent the introduction of anything similar … and the lobby groups, unfairly perhaps, continue to make inaccurate and misleading statements …

One of the biggest claims of course is that kerbside recycling achieves the same results, but I don't think you will see those results when you go interstate and when you travel on the highways, because there is no kerbside recycling on the highways, beaches, conservation parks or whatever".[5]

Amendments to the relevant legislation are currently being considered, particularly in relation to interstate containers. "We are looking at some dispute provisions because of the commercial arrangements between the depots and the super collectors, which requires them to sort by brand. …I think what we have in principle is a very good scheme and it is well accepted by the community, but there could be some improvements in terms of the infrastructure and the arrangements between the stakeholders. We are looking at making more transparency in some administrative procedures".[6]

In 2003 the South Australian Parliament's Environment, Resources and Development Committee reported on waste management and made the following conclusions in relation to CDL :

"Container deposit legislation is strongly supported by the South Australian community and a part of the local culture. Arguments were raised both for and against increasing the refund. A review into the economic and environmental implications of raising the deposit value should be conducted.

There were some issues raised around managing CDL, including the anomaly relating to the different capacity containers covered by the legislation – that is, most containers are up to and including 3 litres while others are less than 1 litre. This is confusing for the public and the collection depot operators as the packaging material is the same.

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[5] Smith, Mr Steve, EPA Senior Adviser, Container Deposit Legislation, Environment Protection Agency, South Australia, Transcript of Meeting, 29 June 2005, p. 15.
[6] Ibid., p. 18.

Further the Committee found that there is a potential for abuse of the scheme from containers that have not incurred the deposit – most containers are labelled nationally by the beverage industry to minimise costs". [7]

The Committee recommended that :

- The Prime Minister, through COAG, encourage all states and territories to adopt uniform national container deposit legislation.
- All CDL containers be a uniform capacity of up to and including 3 litres.
- The 5 cent deposit value be reviewed and that an analysis of the benefits of an increase be determined, considering both economic and environmental factors.
- The government introduce legislation to minimise the potential abuse of CDL.
- The EPA collect data to make the container deposit scheme more transparent and determine the amount of unredeemed deposits.
- Government investigate the value of redeemed deposits so that unredeemed deposits can be returned to the system for litter education initiatives.[8]

Despite the local support for container deposit legislation, the Packaging Council of Australia argues that, "It has been demonstrated in South Australia that mandatory deposits lead to a loss of skilled full-time employment. Part-time unskilled job creation occurs but this should be of no satisfaction".[9]

New South Wales

Some Members of the Committee met with Tim Rogers, Roz Hall, Ann Trofa and Fiona Robertson in relation to waste avoidance and the resource recovery strategy in New South Wales. Legislation in this state provides a head of power to enable extended producer responsibility to be mandated if a sector is not delivering.

In relation to CDL, New South Wales is working to get a national solution and is looking at "…what is happening around the world and whether it can be transferred across to an Australian condition or not. One of the things that is problematic, and it is one of the things that fell out with the CDL work that we had done here, was that there are a number of factors which can potentially impact on a State's ability to act unilaterally, and they are things like the Constitution".[10]

An Independent Review of Container Deposit Legislation in New South Wales conducted by Dr Stuart White of the Institute of Sustainable Futures at the University of Technology found that "Container deposit legislation is an example of an increasingly important environmental management principle,

[7] South Australia ERD Committee Report on Waste Management
[8] Ibid.
[9] Packaging Council of Australia Inc – Issues Paper, p. 3.
[10] Hall, Roz, Department of Environment and Conservation, New South Wales, Transcript of Evidence, 27/6/05, p. 20.

known as extended producer responsibility (EPR)". [11]

The CDL Review recommended that "the NSW Government seek agreement at a national level for the adoption of EPR. This would allow a more effective model of EPR to be developed for NSW by addressing constitutional and cross-border issues".[12]

The Review also "found that stakeholder attitudes to CDL are highly heterogeneous, with strong support from local government and environment groups, majority support from the community, limited support from the recycling industry and opposition from the beverage, packaging and retail industries.

The potential benefits of introducing CDL in NSW were found to significantly exceed the costs.

In summary, the estimated value of the environmental cost of disposing of a single average beverage container to landfill, compared to recycling that container, is 8-9 cents. The cost of recovering that container through a combined CDL and kerbside recycling strategy is approximately 2-3 cents.

The CDL review concluded that NSW would obtain overall benefits from the significant improvement in the container material recycling rate and the reduction in litter that could be expected to result from the introduction of a best practice form of CDL. The Review considers that the desired outcomes of high recycling rates and reduced litter are also achievable through other regulatory mechanisms such as mandatory recovery and recycling targets. However, it notes that international experience has found deposit-refund systems to be the most effective mechanism for achieving high container recovery rates".[13]

The Packaging Council of Australia again put a case against container deposit legislation, stating that :

- "The argument for mandatory deposits (or more generally container deposit legislation) continues to be put forward as the panacea to 'solve the environmental ills created by packaging'. Such a system, applied to beverage containers, means the consumer pays a deposit on top of the purchase price which is refunded on return of the container to a specific location.
- Mandatory deposits are cited as the means to reduce litter; to encourage recycling; or through the use of refillable containers, to conserve energy and raw materials usage and reduce waste going to landfill.
- The rationale that consumers will return their containers rather than forfeit their deposits and thus bring about these outcomes has

[11] White, Dr Stuart, *Independent Review of Container Deposit Legislation in New South Wales* (University of Technology, Sydney)
[12] Ibid.
[13] Ibid.

superficial validity. The outcomes are seen as desirable and therefore the position has popular appeal.

- The detailed evidence from those areas where mandatory deposits are in force show that the arguments are fallacious and little, if any, environment benefit has been gained.
- In addition, evidence and a number of well researched government and privately commissioned inquiries have shown that the economic impact of deposit legislation far outweighs any gains, and that mandatory deposits would not resolve the environment issues".[14]

A report by the Centre for Environmental Solutions on the Impacts of Container Deposit Legislation on New South Wales Recycling and Litter Management Programs also points out a negative view :

- "In metropolitan Sydney, Council and Waste Service NSW facilities would have to be modified to redeem containers, creating a parallel, less efficient system than the existing kerbside collection and processing of recyclables.
- Rural NSW recycling programs would require significant grants, handling fees, or increased Council rates in order to redeem CDL containers.
- Increased recovery through collection depots may come at the expense of kerbside recycling programs through lost material sales revenue, lower yields per household, and lost economies of scale. Kerbside recycling contractors could benefit from redeeming deposits and receiving handling fees on the containers that remain in kerbside collections, and could theoretically pass these benefits on to Councils. However, costs to provide kerbside collections would remain fixed despite recovering a smaller volume of recyclables. Program costs may rise, which would ultimately cause Council rates to rise.
- By itself, CDL is unlikely to improve non-residential recycling programs, which represent half of container usage (such as commercial, public place and special event recycling, as well as litter prevention).
- CDL is unlikely to impact on non-beverage container litter, which represents over 90% of the litter stream. It is also doubtful whether CDL would affect littering behaviour in a beneficial way".[15]

Western Australia

Some Members of the Committee met with Michael Kerr, Manager of the Waste Management Board, Carolyn Jackobsen, Adrian Price, Cameron Schuster and Sue Graham-Taylor, Members of the Board as well as Phillip Hine, Manager, Environment Regulation Branch and John Ottaway, Principal Consultant, Department of Environment.

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[14] Packaging Council of Australia Inc – *Issues Paper*

[15] Centre for Environmental Solutions – Impacts of Container Deposit Legislation on New South Wales Recycling and Litter Management Programs – December 2000

The Members were briefed in relation to the overall waste strategy for Western Australia and included discussions regarding the state's policy on container deposit legislation.

In 2003 a study was undertaken into the introduction of container deposit legislation in Western Australia. The study recommended that CDL not be introduced in that state, the main reason being the cost of infrastructure. However, "more recently it has come to the fore again, probably through the lack of progress through the National Packaging Covenant and looking at alternatives to the approaches that have been attempted, relatively unsuccessfully if not largely unsuccessfully, through the original National Packaging Covenant.

There has certainly been a lot of discussion around, why don't we just find an alternative here like CDL that we can put in place and deal with it – at least one significant form of packaging waste.

Unfortunately, with the way the covenant is set up at the moment, in effect if you are a signatory to that covenant then you can't just go and introduce CDL in your state".[16]

A Member of the Waste Management Board believed that there was no reason why CDL and EPR could not work together. "The cost has been put on the packaging and people can see that they can get money back for that, but because it is being also paid by the producer, the producer starts to see that as economic incentive for getting rid of that packaging. You have to have it on more than just glass or else everything would be in plastic, which of course is what happened and is continuing to happen. So you need to have perhaps a variable in terms of the price of the deposit. There would have to be some consideration of whether it was State-funded or whether it became an incentive to EPR by saying the State will pay for some of this container deposit".[17]

In November 2005 the Western Australian Environment Minister announced an investigation of different modes for container deposit schemes that may be used in Western Australia.

"Dr Edwards said the container deposits would strengthen initiatives such as the National Packaging Covenant that was an Australia-wide move to reduce waste".[18]

The latest information from the Western Australian Department of Conservation and Environment is that a stakeholder advisory group has been established to advise the Minister on the types of best practice container deposit systems applicable to Western Australia and the group is expected to

[16] Kerr, Michael, Manager, Waste Management Board, Transcript of Meeting, 30 June 2005, p. 12.
[17] Jakobsen, Carolyn, Member, Waste Management Board, Transcript of Meeting, 30 June 2005, p. 13.
[18] Minister for the Environment, Media Statement, 27 November 2005.

report to the Minister in February 2007.

It is believed that the most appropriate powers to allow for the implementation of a container deposit system (CDS), if the Minister directs, are set out in the Draft Waste Avoidance and Resource Recovery (WARR) Bill 2006 which has recently been released for 14 weeks public review.[19]

Independent legal advice is also being sought to ensure that the provisions of the Draft Bill are sufficient to implement a CDS for Western Australia or whether amendments or stand-alone legislation is required.

Australian Capital Territory

The Beverage Industry Environment Council is critical of CDL for all Australian states, and points out that "the latest Australian Bureau of Statistics figures show that 97 percent of Australian households now play an active role in recycling, via their kerbside recycling service.

… The Victorian, West Australian and ACT Governments have recently published studies that – for a variety of reasons, including financial damage to established kerbside-recycling systems – found CDL would be an expensive, environmentally undesirable and inefficient addition to the existing Australian waste management infrastructure.

A number of earlier Australian Government inquiries – including two by the Industry Commission – found that the costs of CDL to consumers, governments and industry outweigh any environmental benefits.

The beverage industry believes that a partnership of producer responsibility, consumer knowledge, effective kerbside recycling systems, improved public place recycling and effective sanctions against those who deliberately litter will deliver better environmental and community outcomes than CDL.

- CDL would financially damage the kerbside recycling systems used by 97 percent of all Australians – because these two waste management approaches are incompatible.
- It would cost $123 million to establish the basic infrastructure for CDL to operate in NSW alone.
- The cheapest form of CDL costs 2.5 times more per household than the cost of providing a kerbside recycling service.
- In the past two years the Victorian, West Australian and ACT Governments have published studies that found CDL would be an expensive, environmentally undesirable and inefficient addition to Australian waste management systems.
- The ACT Government report found that the ACT's kerbside-recycling-based system is already recovering a higher percentage of beverage containers than any of the American CDL states, including California.

[19] Ottaway, Dr John, Principal Consultant, Western Australia Department of Conservation and Environment, email dated 25 August 2006.

- South Australia, the only Australian state with CDL, lags behind virtually all States and Territories in its rate of diverting reusable materials away from landfill towards reuse.
- CDL only addresses beverage containers that comprise 10 percent of the litter stream.
- Consumers would pay higher prices for beer, soft drinks and wine if CDL was introduced".[20]

The Beverage Industry Council further states that, "Current ACT efforts, guided by the NoWaste 2010 strategy, are more comprehensive and cost-effective than CDL and considerably easier to educate residents about than a combined kerbside and CDL program".[21]

According to the Packaging Council of Australia, "CDL has been described as the lazy policy option and the policy option for the 1970s. Echoing these sentiments, the PCA believes that CDL has severe limitations as an effective waste management tool. CDL –

- Applies to only a very small proportion of the waste stream (Beverages) where it is in operation.
- Will impose infrastructure costs disproportionate to the size of the problem being addressed.
- Targets the beverage sector which has been at the forefront of support for waste minimisation and recycling in NSW and throughout Australia.
- Focuses on recovery and has a minor impact on environmental sustainability and waste management minimisation.
- Does not directly address life cycle management of packaging.
- Will seriously undermine the National Packaging Covenant and disrupt the move towards a harmonious national approach.

The limited benefit of CDL is reflected in the fact that it has been adopted by very few governments around the world as a waste management option. Twenty-eight years after it was first introduced in the State of Oregon, CDL has not been adopted by any country on a national basis. It is only in force in ten States in the US, some States in Canada, and in South Australia. In all these cases CDL applies only to beverage containers and, in all cases, to a less than complete range of beverages".[22]

Mr Chris Horsey, Manager of ACT NoWaste, believes that there are some merits to CDL, but he would not recommend it for the ACT. "Our fear is that we have a successful kerbside recycling system, which is convenient and has 95 per cent participation rate, with 78 per cent extraction. If we do this, what happens? We jeopardise our system. We don't think that is the best way to go".[23]

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[20] Beverage Industry Environment Council – ACT Study
[21] Ibid.
[22] Packaging Council of Australia – "Container Deposit Legislation – the lazy option or policy for the 1970s"
[23] Horsey, Mr Chris, Manager, ACT NoWaste, Transcript of Meeting, 28 September 2005, p. 15.

Queensland

Some Committee Members met with officers from the Department of Environment in Brisbane. Mr Tim Powe, Manager, Policy Division, believes that "CDL would compete head on with [the] kerbside recycling system … It costs local governments about $1.10 to $1.20 each time the truck pulls up in front of your house and empties 240 litres into that truck. That includes a $60 per tonne moving processing fee. We don't think a householder could take 240 litres of empty beer and Coke bottles to a sorting depot somewhere in the city for that price. …We can't run two systems because what keeps kerbside viable is that you have aluminium in there worth $1 500 a tonne and PET and HTP plastics worth $400 a tonne. You would remove those from the kerbside system by bringing in the CDL and you would leave the low-value materials in there, such as newspapers which are worth $30, $40 or $50 a tonne."[24]
Mr Powe also believed that if Queensland did want a CDL scheme, it would need to include the whole eastern seaboard, as there would be "…truckloads of empty bottles coming across the boarder".[25]

Victoria

Mr Scott Maloney, Manager of the Waste Management Unit of the Victorian Environmental Protection Agency believes that there are a number of pros and cons in relation to CDL.

"I think CDL obviously has a potential to increase some of the recovery rates around waste management situations, the bottles and cans et cetera around sporting grounds and public places, so it is something that will be kept on the table … We saw it as being significantly expensive and placing our kerbside system at risk by taking some of the bottles and cans and the valuable PET out of the kerbside system. Obviously CDL doesn't present a complete solution because it does look at a fairly narrow portion of the packaging types".[26]

A study undertaken by Nolan-ITU into the financial impacts of container deposit legislation was also considered by the Committee. The key findings of the study indicate that "the introduction of a parallel CDL system in conjunction with existing kerbside recycling systems would result in an increase in the retail cost of beverages from between 13.4 and 14.6 cents, which would result in an increase in average annual household expenditure of between $181 and $219. This would be offset by a decrease in the cost of kerbside services of between $32 and $37 per household per year.

…The net financial effect to households, as ratepayers and beverage consumers, is an increase in the average cost per household per year of between $111 and $157.

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[24] Powe, Mr Tim, Manager, Policy Division, Queensland Department of Environment, Transcript of Meeting, 27 September 2005, p. 22.
[25] Ibid., p. 23.
[26] Maloney, Mr Scott, Manager, Waste Management Unit, EPA Victoria, Transcript of Meeting, 26 September 2005, p. 36.

While there would only be a minor reduction in the actual cost of providing kerbside collection services, the CDL deposits recovered by the sorter will increase their revenue significantly. This will result in a significant reduction in the net cost to the local governments of providing kerbside services, as sorters will be willing to provide their services at lower cost. This cost reduction for the individual councils studied would range between $0.25 million and $0.64 million if they are able to receive 10% of the available CDL deposits".[27]

TASMANIAN EVIDENCE

The Committee heard arguments, both for and against, whether it would be possible for Tasmania to implement its own container deposit legislation.

Evidence received from Mr Russ Martin, representing the Beverage Industry Environment Council (BIEC), indicated that "…implementing CDL in Tasmania would have to be part of a national CDL scheme due to the Commonwealth's *Mutual Recognition Act 1992* and due to constitutional matters that would likely classify CDL as an excise"[28].

Representatives from the Department of Primary Industries, Water and Environment advised that specific legal advice in this regard had not been sought from the Solicitor-General, but it was now believed that "… it is possible, as long as you are clever enough in the way you went about it. There would certainly be some significant hurdles to overcome in doing that".[29]

The Committee sought an opinion from the Solicitor-General and the advice received concluded that "…it ought to be possible to craft legislation which operated effectively in this State to make enforceable provision for the charging and collection of refundable container deposits without infringing the requirements of the *Mutual Recognition Act 1992 (Commonwealth)*".[30]

The Tasmanian Government's current waste strategy is focussing on the national packaging covenant. "The national packaging covenant is attempting to address packaging waste on a wide range and looking at a cradle-to-grave approach. CDL … has a very narrow focus, not only on beverage containers, but also on collecting the stuff at the end rather than design of products and so on. At the moment we are supportive of the more holistic approach that the national packaging covenant is taking, but … with the qualification that it has to deliver".[31]

In the Department of Primary Industries, Water and Environment written

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[27] EPA Victoria, Container Deposit Legislation – Financial Impacts, January 2003, pp. 1-2.
[28] Martin, Mr Russ, Environmental Consultant, Beverage Industry Environment Council, Transcript of Evidence, 21 April 2005, p. 70.
[29] Jones, Mr Warren, General Manager – Environment, Department of Primary Industries, Water and Environment, Transcript of Evidence, 21 April 2005, p. 80.
[30] Bale, Mr WCR, QC, Solicitor-General, Letter to Chairman, dated 29 April 2005, p.2.
[31] Jones, p. 82.

submission, the viability of kerbside systems was questioned if CDL was introduced.

"The removal of high value material from kerbside systems in favour of container collection depots may reduce the viability of Council kerbside systems. Profit margins for the remaining materials may be reduced, and a likely outcome is that local government will need to increasingly subsidise collections to offset this effect. It should also be recognised that, although South Australia has a CDL system to help reduce litter, it also has the lowest recycling rates in Australia for some commodities e.g. newsprint. In some instances the lower value materials that are collected are landfilled, thus causing a further waste problem.

Although CDL schemes may encourage people to return containers, they do not address reuse or reprocessing options. …A container deposit system is of little value for waste management unless accompanied by market development to increase the demand for recycled materials, otherwise the returned materials may be landfilled. …A CDL system does not address the broader management of other waste packaging materials, such as paper and cardboard. The introduction of CDL may also be arguably unfair, as well as anti-competitive, as it legislatively targets a very small proportion of the overall waste packaging stream".[32]

Mr Martin, on behalf of BIEC, acknowledged that "…CDL does generally increase beverage container recovery and that CDL does reduce beverage container litter which generally accounts for 8 to 10 per cent of the litter stream".[33] However, he also argued that the "impacts are highly dependent on the deposit providing enough incentive to warrant the extra effort. To keep up with inflation, deposits would have to be in the order of 20 to 30 cents per container in order to provide much motivation to consumers. …As evidenced by the general decrease in CDL beverage recovery rates over time, the deposits also lose their value over time, and programs rarely increase the deposits once they have been implemented. It also becomes harder and harder to educate and motivate consumers, given that there is strong competition for consumer attention".[34]

According to the Beverage Industry Environment Council, "If you introduce CDL on top of comprehensive recycling you create a duplicate system that would undercut recycling programs and increase the cost of kerbside recycling if … consumers are motivated by the deposit. That is because CDL would then remove the high-value materials out of recycling programs. Costs would not go down, even though less material would be recovered, and in fact council rates may actually have to increase. Officials of Germany's dual system report that the introduction of mandatory CDL on top of their comprehensive recycling program resulted in a cost of over $300 million euros or about half a billion dollars Australian in 2003. Recent studies have also

[32] Department of Primary Industries, Water and Environment, Submission dated November 2004, p. 4.
[33] Martin, Mr Russ, Transcript of Evidence, 21 April 2005, p. 71.
[34] Ibid.

found that implementing CDL in Germany actually resulted in a negative effect on the environment and a net loss of 9 500 jobs in 2004".[35]

The Southern Waste Strategy Authority did not favour CDL and supported BIEC's argument that "…kerbside recycling is at least as effective and it acts on a broader range of materials. You wouldn't do both, so I think it is one or the other but not both. The only people I know of who have done both have done CDL first and found they have had to introduce kerbside to get a greater range of materials recovery".[36]

Additional information provided to the Committee by the Southern Waste Strategy Authority indicated that "… if 80% of food and drink containers were diverted to CDL, the value of kerbside materials would reduce by $11/household/year. This represents a 43% increase in the cost of kerbside services to local government".[37]

Mr David West, representing Boomerang Alliance, stated that "one of the reasons CDL is criticised by industry is that in a number of nations in northern Europe they have chosen to set the deposit so high because they want to cap consumption. …I am not going to recommend that Tasmania does that but I think it is very important to recognise that the cost and the impact on kerbside is purely based on where you decide to set a deposit and a handling fee based on the environmental outcomes that you are looking for".[38]

"At least 10 nations or states introduced CDL on top of an existing kerbside system".[39]

"…The most remarkable thing about the Californian system is that they use part of their unredeemed deposits to underpin markets for quality goods. At the moment what they are underpinning is glass recovery. They actually provide a rebate for clean glass. What that has resulted in is that California absolutely dominates business opportunities in the production of glass and bottles, in development of new small-line aluminium things such as aluminium bats and aluminium can openers and those sort of things. They have done that through their EPR system. They can guarantee the feed stock of a clean, reliable, consistent source of materials and they now absolutely dominate the production markets in areas of plastics, glass and aluminium, even though they don't have the raw materials extraction that the rest of the country does. I believe that is an enormous opportunity for Tasmania".[40]

Mr West believes that CDL should be regarded as part of EPR as "…some of the best systems work in parallel. Japan has been doing great guns in the last five to ten years. It introduced a packaging audit built an aspect of

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[35] Martin, p. 72.
[36] Griffiths, Mike, Chief Executive Officer, Southern Waste Strategy Authority, Transcript of Evidence, 21 April 2005, p. 96.
[37] Southern Waste Strategy Authority, National Waste Management Policy, Discussion Draft, April 2006, p. 4.
[38] West, Mr David, Boomerang Alliance, Transcript of Evidence, 21 April 2005, pp. 27-28.
[39] Ibid., p. 28.
[40] Ibid., p. 34.

container deposits off that and is now the first nation that is tackling in real, meaningful ways things like end-of-life vehicles and computers, without a murmur of industry opposition".[41]

In support of CDL, Dr Simon Parsons argued that "… the number of containers being returned [in South Australia] is actually up from 30 to 80 percent based on that levy and we all know that the main lobby group that opposes this levy is funded by the beverage industry… All forms of packaging could have some sort of levy attached to them – cigarette butts, potato chips, particularly fast food packaging".[42]

Mrs Jo Carswell, on behalf of Clean Up Australia Day, believed that "… container deposit legislation for this State is long overdue and would go some way in addressing the issue of litter and bringing a certain amount of litter into the waste stream – in other words, a resource recovery".[43]

"I feel it will stop the amount of rubbish that is discarded presently when it is obviously financial issues that preoccupy most individuals' decision making ; for example, 'should I throw out this bottle or shouldn't I?' I have publicly said before I would like to see a dollar as the deposit legislation on beverage containers. It sounds very radical but if you really go out there and look at all the roads, you could be assured that if someone had a decision to make about either throwing a bottle out of the window that was worth a dollar or returning it to recover the dollar, they would return it".[44]

Also in support of EPR and CDL, Ms Mackeen, General Manager of Athena Waste Management stated "… we are trying to get away from that idea of chuck it in the garbage bag, throw it out the front door and forget about it – it's somebody else's responsibility. We need to bring it back to the individual all the time. Saying that, we need to bring it back to our industry as well – extended producer responsibility. If I am going to produce something that is wrapped in glassy paper, plastic and foam then my company should be taking responsibility for that. Fisher and Paykel are a good example in New Zealand. They now retrieve or accept back all their freezers, fridges and washing machines that they have produced – good, bad or otherwise – for reuse businesses".[45]

In more recent correspondence received from the General Manager of the Environment Division of the Department of Tourism, Arts and the Environment, the State Government's views in relation to container deposit legislation were clarified :

"Our previous submission raised a number of known issues about CDL systems, in particular the potential to remove the most valuable items (e.g. glass) from kerbside recycling bins and therefore harm the economic viability

[41] West, p. 35.
[42] Parsons, Dr Simon, Transcript of Evidence, 21 April 2005, p. 6.
[43] Carswell, Mrs Jo, Transcript of Evidence, 21 April 2005, p. 43.
[44] Ibid.
[45] Mackeen, Debra, Athena Waste Management, Transcript of Evidence, 21 April 2005, p. 57.

of kerbside recycling as a whole. While these concerns remain, it should be noted that it may be possible to construct a CDL system which enables Councils (or their contractors) to collect unredeemed deposits and so support kerbside recycling. The actual impact of CDL on our successful kerbside recycling systems constitutes an 'unknown' and potential risk that would need careful consideration".[46]

In analysing the evidence presented to the Committee, it is clear that there are conflicting views in relation to the success, or otherwise, of the implementation of Container Deposit Legislation for Tasmania.

Recommendation :

The Committee recommends that the State Government introduce a container deposit system in Tasmania, subject to its viability and effectiveness being supported by a cost benefit analysis.

[46] Jones, Mr Warren, General Manager, Environment Division, Department of Tourism, Arts and the Environment, Letter dated 23 August 2006, p. 2.

Summary of Letter from Revive Recycling Pty Ltd to the Hon. Minister McGowan MLA

29th September 2006

1) ZERO NET SYSTEM COSTS

Container deposit systems already exist which are fully self-funding. In such systems material revenue and unredeemed deposits exceed system operation costs, without any additional funding required from government or the beverage industry.

New technology applications will only further improve efficiencies: Revive has modeled a number of system scenarios and while results vary with design assumptions, it is relatively straightforward to design systems that will operate at a net surplus, even after infrastructure costs.

As an example, a system with a 10 cent deposit, 80% recovery rate and reasonable container coverage, and 80% automated returns would result in a system surplus of >$5m per annum.

Other key benefits - environmental benefits, kerbside savings and reduced litter – can then be regarded merely as upside.

2) INWARD INVESTMENT INTO WA

Revive, with its financial partners, is prepared to invest in the installation and operation of a network of automated collection centres as the backbone of a new deposit system.

Revive has also held initial discussions with a number of re-processors who have expressed interest in setting up operations in WA if the quantity and quality of recyclables expected under a deposit system become available. In addition Revive is in touch with a group that is interested in leveraging a container deposit system to roll out broader collection and recycling infrastructure.

Taken together these represent potential investments of many tens of millions of dollars, and the creation of several hundred jobs. Revive offers to put these parties in touch with Minister McGowan's office.

3) REVIVE'S SUPPORT IN ASSESSING SYSTEM DESIGN & IMPLEMENTATION ISSUES

In response to Minister McGowan's question about deposit amount, Revive recommends a 10 cent deposit. South Australia's 5 cent system was introduced 30 years ago when 5 cents was worth more than four times what it is today, and while SA now has the advantage of decades of positive consumer habits, a new system is likely to require a greater level of incentive. Additionally, a 10 cent deposit will result in a greater total pool of unredeemed deposits providing funding security and a cushion for the implementation of a new system.

Finally Revive offers its assistance in this and other design and implementation areas as the SAG moves to assess the latest system design, technology integration issues, and financial and implementation considerations.

27 November 2006

Mr John Hyde MLA
Chair – Best Practice Container Deposit Systems WA – Stakeholder Advisory Group
c/o Waste Management Branch
Department of the Environment
PO Box K822
PERTH WA 6842

Dear John

RE: AFGC/PSF comments on the draft working document from the Stakeholder Advisory Group on Best Practice Container Deposit Systems for Western Australia

In accordance with the minutes of the SAG meeting on 3 November the AFGC would like to formally provide you with comments on the draft working document (DWD) from the stakeholder advisory group. The attached copy of the DWD provides detailed comments on both the DWD and adherence to the Terms of Reference, however I would like to highlight a number of key issues.

It is the AFGC's view that the depth of information contained in the DWD does not adequately address, in a number of instances, the Terms of Reference provided by the Minister to SAG. In most instances, information provided is too narrow and constitutes generally broad statements with very few references to support how an outcome is expected to be achieved or why a particular claim/expectation has been made.

Further, the expectations that are included in the DWD lack a significant level of robustness and analytical input from which the Minister can be informed on appropriate developments for waste management policy in this area. The expectations essentially constitute a very light weighted wish list for a BPCDS that have not been justified nor the rational for them documented. This is disappointing given the SAG has been meeting for nearly 12 months. This situation may have been able to been overcome to some degree had the original timeframe for the group been retained (ie a proposed "system construction" review process occurring in February 2007).

AFGC remains concerned that if this DWD was to be used as a basis for the development of a detailed system there is not sufficient detail for any future body to adequately understand what is required. It is our view that the SAG should clearly identify the basis and intent of the expectations made. If there is not a clear rationale and policy outcome, we are concerned that the future path for this initiative will not meet the Government's requirements for a rigorous and transparent policy development process.

In relation to the wording of the DWD, the AFGC is concerned that the "expectations" as they are currently written contain a mix of "end of pipe goals" and only very brief conceptual ideas on how these goals can be achieved. It is our view that the SAG should restructure the document to provide a clearer understanding to the reader (ie the Minister) of what SAG's understanding of what a BPCDS would require.

The AFGC remains of the belief that the principle of the SAG is flawed for one pivotal reason. Namely, at no point has the WA Government stated the specific and clear policy objective for

seeking a CDS for WA. As a result and in the absence of a specific and clear policy objective, or statement of the specific environmental or other problem that requires fixing, the SAG has clearly struggled to develop any coherent outcomes by which to design and develop a CDS. It is apparent that the SAG has spent almost 12 months considering a solution that is either not fitted to any particular problem or is disproportionate to a given problem. The questions of "What is the Problem that need addressing? is regulation needed?" and "What are the Options to Solve the Problem?" should have been addressed and answered to enable serious policy or system development. These questions follow a basic COAG process that is used when developing regulatory action or standards. The failure to have these questions addressed prior to establishing and commissioning the SAG reflects the broad and general nature of the expectations contained in the DWD.

Finally, I would like to reiterate the industry is not opposing the importance of the issue of improving waste management in (Western) Australia. What we do oppose is the fundamental nature of the vehicle that has been chosen to address the issue. We look forward to working with the Western Australian government on improving the management of consumer packaging via the existing National Packaging Covenant and appreciate the opportunity to engage on the issue.

The AFGC seeks that our views on this issue be recorded and addressed as a matter of urgency.

Regards

Anne Braithwaite

DRAFT DATE 3 NOVEMBER 2006

The Stakeholder Advisory Group was established by the Minister for the Environment in January 2006 to investigate best practice Container Deposit Systems for Western Australia and provide advice to the Minister.

Container deposits are small refundable fees on items such as cans, bottles and other packaging items which can be redeemed on return of the used containers to specified locations. Systems of this nature encourage the return of containers for recycling and discourage the inappropriate disposal and/or littering of these items.

The terms of reference for the Advisory Group

To provide advice to the Minister for the Environment on best practice container deposit systems for Western Australia **having regard to the following important focus areas**:

AFGC Response
The DWD does not fully address the focus areas outlined in the SAG's Terms of Reference (TOR). The following responses have been provided on the TOR and the AFGC view on whether or not they have been adequately addressed.

- Maintaining and improving on existing kerbside recycling programs.

AFGC Response
The issue of how the SAG envisages a best practice system "maintaining existing kerbside programs" is not addressed in any detail. If it is an inherent belief of the SAG that in the development of a BPCDS the existing kerbside system (or consumers that utilise it) would not be disadvantaged then a clear statement to this effect with justification should be included in the communiqué.

The potential for a CDS to remove key materials from a kerbside system, and the costs to the community of doing so, have not been addressed in the DWD to the extent that the reader can be considered to have been fully informed on the impacts of CDS on kerbside and make an informed decision on whether CDS can actually maintain and improving kerbside recycling systems.

- Away from home recycling and litter

AFGC Response
The DWD does not specifically addresses the focus area of Away From Home recycling or litter reduction. In the case of beverage containers, they are generally only a small part of the total litter stream and CDL has not resulted in significant overall litter reduction in South Australia. For example,, when population size is taken into account, SA has more drink container litter per 1,000 people on highways than NSW, Vic or Qld (ref KAB National Litter Index Report 2006).

Should CDL be introduced, local governments in WA will still need to provide infrastructure and services to capture other non-deposit items in litter bins or to clean up after littering occurs. Details of potential costs have not been fully explored by the SAG with an expected Technical Support Team (TST) report on costs to Local Government still outstanding.

- Employment and business opportunities

AFGC Response
While this issue is briefly referred to in expectation item number 6, it is unclear how implementation of a CDS will create employment and business opportunities.

- Regional and rural recycling

AFGC Response
While this issue is referred to briefly in expectation item number 7, examples should be provided where "active mechanisms" have been used successfully in other CDS

- Sustainable recycling programs

AFGC Response
DWD does not explain what is meant by sustainable – the issue is not addressed in the DWD. Environmentally, economically or socially sustainable? The AFGC view is that all three of the criteria for sustainability should be considered.

- Consumer costs

AFGC Response
In terms of addressing this point the SAG has not clearly stated the need for identifying the cost to the community of the current kerbside system on consumers for use as a baseline to compare any costs of CDS introduced nor has the breakdown of system costs been clearly defined, for example, the resource recovery fee or where costs of handling the material are to be recovered from. These need to be articulated clearly for purposes of transparency.

As the SAG is not involved in any cost benefit / economic analysis profiling, it is the AFGC's position that the SAG should articulate clearly the minimum issues such analysis should incorporate. For example, if consumer costs are a key issue to focus on then a benchmark of existing costs to the consumer must be clear and be used as a starting point. The financial impact of an alternative or subsequent system requiring consumers to return containers to redeem a deposit has not yet been fully explored in a Western Australian context hence this point remains a major concern and requires specific attention.

- Regulatory Impact

AFGC Response
This issue is not addressed. It is important to raise the issue of the draft amendments to the Waste and Resource Recovery Bill currently out for public consultation to put the context of the Governments request for this investigation for any reader of the DWD – particularly if the Minister agrees to the release of this document for public comment as part of a open consultation phase. The Bill provides for regulations to be drafted under it to implement a CDS. If a mandatory CDS was to be implemented this would have a significant regulatory and cost impact which is likely to impact negatively on consumers and business. The AFGC would expect that as part of any proposed introduction of mandatory regulation that government process would at the very minimum, include a comprehensive regulatory impact statement and cost benefit analysis.

- Scope for target containers

AFGC Response
A statement of intent is critical in addressing this point. There has not been specific agreement on the type or scope of containers that would be included under a BPCDS other than a board overarching statement. The entire viability of the program depends on what is defined as a container yet information on this issue remains vague.

- Community participation

AFGC Response
DWD does not address this issue.

Background

The Advisory Group has now completed its investigation during which it focussed on gathering information and building an understanding of the various systems elsewhere in Australia and around the world. During this time a delegation from the Advisory Group visited facilities in South Australia to gain a first hand understanding of a working container deposit "scheme".

The Advisory Group recognises that Container Deposit Systems are operating successfully in many jurisdictions elsewhere, including *some provinces* in Canada, *some states in* the United States, *some* European nations and *one state in* Australia. Where these systems operate, rates of recovery for deposit containers typically range from 50-90%. This is significantly higher than rates achieved in jurisdictions where non-deposit systems of collection are used, including Western Australia.

AFGC Response
The AFGC representative identified in Meeting 7 of the SAG that the above wording was not supported. The request was made that an unbiased view be expressed and acknowledgement given to that fact that there are systems in some of the aforementioned countries that are also experiencing problems. The AFGC requests that the additional wording in italics and underlined above in the background be included.

The Advisory Group is pleased to be able to report a number of expectations from the investigation.

AFGC Response
If the SAG is proposing expectations for a CDS then it should provide an insight into how the expectations will be realised. The AFGC is extremely disappointed that after almost 12 months and some 10 meetings, the expectations listed below are broad and non specific and do not adequately address the Terms of Reference issued by the Minister. This situation may have been able to been overcome to some degree had the original timeframe for the group been retained.

The Stakeholder Advisory Group expects best practice Container Deposit Systems can be developed for Western Australia that:

1. **At least, double the rate of recovery for applicable deposit containers in Western Australia.**

AFGC Response
There is a critical need to identify and agree on the basis for the current benchmark for the existing recovery rate of container recovery in WA. It is recommended that the SAG agree upon and state the current benchmark and provide evidence on how a BPCDS will improve on that agreed current rate. If improving recovery is the sole policy objective the AFGC would like the SAG to acknowledge that improvements can be achieved by other mechanisms than CDL. There is evidence to show that Victoria's recovery rates are outstanding and this has been achieved without a CDS.

In addition the first point should be to define what is meant by a container. This has not been identified so before a system that is going to improve recovery/collection of materials can be discussed we need to know what materials are being included in the proposal.

2. Reduce overall cost to local government, the wider community and the environment.

This is achieved by shifting more of the burden of waste and litter management to the producers and consumers responsible for container wastes. This is in accord with the principles of polluter pays, Extended Producer Responsibility and Product Stewardship. As producers and consumers are those that can affect changes in the recyclability and the recovery rate of containers, they are best placed to reduce (influence) the overall management cost. This is also achieved by removing problem materials from other waste and recycling streams, such as glass from residential kerbside waste and recycling.

AFGC Response

It is widely acknowledged that the costs of introducing a CDS scheme will include:

- *costs of establishing infrastructure for collection and processing of containers*
- *operational costs of running the scheme including:*
  - *householder transport and labour costs of returning the containers*
  - *the cost of handling and processing returns on an ongoing basis*
  - *government costs of administering and monitoring the scheme.*

In addition collection and servicing arrangements for non-beverage packaging will still be required, ie kerbside recycling service, maintenance of infrastructure and servicing for street litter bins, litter traps and street sweeping. These costs will still need to be borne by local government and the fact that these activities will still be undertaken at potentially a higher cost given the expected reduced return has not been addressed by SAG in the DWD.

Given these acknowledged costs the DWD statement does not fully address how a CDS will achieve a reduction in "overall costs" and the AFGC seeks the inclusion of a definition of what the SAG considers to be overall costs.

To date parts of Australian industry have absorbed the costs of existing deposit legislation on beverage containers in South Australia. In contemplating the potential introduction of a CDS system in WA, it is important to for the SAG and the WA Government to acknowledge that industry will be very reluctant to use national pricing to spread the costs out across all Australian consumers as was the case with respect to the SA system. In addition, while the deposit fee is refunded to consumers, other costs such as the proposed resource recovery fee and any handling costs and GST are not redeemed. It is likely that any additional costs placed on industry will almost certainly have to be passed on to consumers and will be inevitably be reflected in significantly higher retail prices for beverages in WA. A statement of the likely increase on purchase price of containers affected by a CDS should be made in the interests of transparency consumers even if SAG considers this will be offset by overall system costs.

The draft report on waste management in 2006 by the Commonwealth Productivity Commission which was brought to the SAG's attention in Meeting 2, March 3, reported the introduction of a CDS would be an additional collection system that competed with existing kerbside collection schemes for resources, and would be likely to reduce the economies of scale of kerbside collection. In addition it also reported that resource recovery under a CDS is also likely to be significantly more expensive than under kerbside recycling. The outcomes of this report should be acknowledged.

The AFGC seeks to record its objection to the inclusion of an expectation on costs, particularly as the report from the Technical Support Group (TST) on costs to local government remains outstanding and therefore has not considered by SAG in the development of this statement, in addition to expectations on costs have been stated without the economic cost benefit analysis having been undertaken to date.

3. **Support the principles of sustainability,** in particular, by providing improved resource efficiency and increased economic opportunities as outlined in the Western Australian State Sustainability Strategy.

AFGC Response

The AFGC seeks acknowledgment of the need to establish specific baseline references for economic, environmental and social impacts against which any suggested improvements can be measured.. This issue has not been clearly addressed in the DWD despite the issue of baselines being discussed and acknowledged in Meetings 7 and 8.

The AFGC seeks the alignment of the proposal with the broader level state based sustainability strategy and waste policy. We advocate inclusion of the expectation that in developing a BP system that all these will be considered – including objects and principles of the EP Act (in particular Part 1 S4 Principles relating to improved valuation, pricing and incentive mechanisms).

4. **Are flexible and responsive and have the ability to improve over time, in response to changing circumstances.** This may be achieved by sorting and processing applicable deposit containers by material type and colour (avoiding sorting to container brand), and through enabling the use of technology to assist with container handling.

AFGC Response

While details on this remain unclear the AFGC remains supportive of policy that is flexible and able to take advantage of developments in technology.

5. **Utilise different methods to collect applicable deposit containers to suit local conditions.** This would avoid mandatory return to point of sale (POS).

AFGC Response

It is the position of the AFGC that SAG should identify the possible "different methods" that could be investigated in developing a BP system and give examples of where these methods have been successfully employed.

6. **Encourage and support local waste management and reprocessing industries to operate and/or expand in Western Australia.** This can be supported by providing a steady stream of high volume uncontaminated materials for reprocessing, and through other incentives, such as government procurement policies incorporating recycled content.

AFGC Response

Wording which suggests a system that encourages and supports local waste industries is extremely broad and non specific about how this would be achieved. The AFGC seeks advice on what is understood by the term "steady stream of high volume uncontaminated materials for reprocessing" and what is required to provide the stream that will result in the establishment (and support) of a waste management and reprocessing industry in WA. If the SAG expects a CDS to provide a "steady stream of high volume uncontaminated materials" then this should be stated specifically with the appropriate references to backup statement that CDS can provide just that.

Notwithstanding this, there is no or very limited market in WA for processed recyclate, so even if there were larger quantities of cleaner material available it only means that more material would be transported out of state for reprocessing.

The availability of more material does not imply local processing of globally traded commodities and does not imply the creation of jobs. The use of government procurement policies is irrelevant in this instance as a large proportion

of materials purchased by government are manufactured outside of WA. Despite this, in reference to the statement the AFGC seeks to have recorded that the WA government is a signatory to the National Packaging Covenant, and as part of the National Packaging Covenant all signatories are required to implement a buy recycled purchasing policy and report on its effectiveness.

7. **Assist non-metropolitan participation in recycling activities.** This may involve active mechanisms to create cost parity between metro and non-metro locations with regard to logistics such as transport. Other strategies may include subsidies, grant or loans.

AFGC Response

Again, no analysis has been made of the economic, environmental and social costs of establishing such mechanisms. As noted previously, as the SAG is not involved in any cost benefit / economic analysis profiling, it is the AFGC's position that the SAG should articulate clearly the minimum issues such analysis should incorporate to ensure all issues raised by SAG is addressed.

8. **Can include a broad range of containers.** The scope of deposit containers in a scheme should be chosen to optimise sustainability.

AFGC Response

As noted previously this is a critical issue of concern and should reflect the discussions that have been held in SAG meetings, ie:-

- *Meeting 3 – containers holding suitable liquids to be included initially – subsequently other containers to be considered.*
- *Meeting 7 action - TST was to provide a definition on range of containers – AFGC notes that this is still outstanding).*

The AFGC is extremely concerned that despite the absolutely critical omission on what type of containers will be included in a BPCDS, a series of expectations has been publicly released through the DWD. The AFGC seeks that this issue be recorded and addressed as a matter of urgency.

9. **Can promote improved packaging.** This can be achieved by creating economic and other incentives for companies to improve the packaging they use.

AFGC Response

AFGC requests that the Environmental Code of Practice for Packaging under the National Packaging Covenant be noted as a measure that already promotes improved packaging design. Furthermore, the AFGC seeks to have acknowledged that a CDL has been in place for 25 years in SA and there is zero evidence that it has achieved anything in relation to improved packaging design. Likewise, CDL jurisdictions across the world use identical packaging to the adjacent non-CDL jurisdictions, and no case can be made that in any jurisdiction the implementation of CDL has altered the packaging.

10. **Provide transparent, open and accountable mechanisms to govern and track the movement of deposit monies and quantities of recycled materials.**

AFGC Response

AFGC agrees that transparent, open and accountable mechanisms for any CDS scheme must be mandatory.

11. **Support community participation.** This can be achieved through creating container deposit systems that are straight forward and convenient to use, while providing public education and other methods to encourage participation.

AFGC Response

Again, a suitably broad and vague statement with no examples provided. Community participation in kerbside recycling is already strong, with high levels of participation, convenience of service (at the kerb) and easy to use systems (bin based recycling systems). The AFGC requests that this fact be acknowledged.

12. **Reduce litter in Western Australia.**

AFGC Response

The AFGC seeks acknowledgment in the DWD that litter is a behavioural problem and not confined to a particular product in the litter stream (i.e. beverage containers). Consequently, the AFGC would like recorded that policy instruments that target litter in general, rather than a small component of the litter stream, are much more likely to be more effective. Given the extremely heterogeneous nature of litter, and the fact that litter is largely a behavioural issue which needs to be addressed holistically, the AFGC seeks to have its views noted.

13. **Can provide new opportunities for the recovery of materials other than applicable deposit containers.** By providing convenient drop off locations for a variety of waste products for which EPR schemes may be established, such as batteries, computers etc.

AFGC Response

The AFGC is extremely concerned that the above statement suggests that a CDS should effectively "subsidise" the costs of the collection and recovery of materials other than applicable deposit containers through the establishment of drop off locations. AFGC objects to the premise that if drop off centres or deports are to be established they would be funded by the fast moving consumer goods (FMCG) sector and then utilised by other sectors. The FMCG sector's consumers would be paying for the infrastructure for other sectors. The AFGC is strongly of the view that this point be removed from the DWD.

14. **Provide for a container deposit and a separate variable resource recovery fee which should only be invoked when resource recovery of specific containers is uneconomic.**

AFGC Response

AFGC is concerned at the ambiguity and confusion that appears to be surrounding this important point and seeks to have the intent of the range of statements below clarified.

Meeting 8 decisions to help flesh out this point – ie:

Decision: SAG agreed to a separate deposit and separate resources recovery fee.

The following comments were noted:

i) A significant proportion of unredeemed deposits should be available to cater for most of the operational costs of the scheme.

ii) A variable resource recovery fee manages the risks associated with the operational costs associated with the recyclability of various container materials and the variability in recycled materials markets that can affect system costs.

Decision: SAG agreed that the Resource Recovery Fee be defined as:

'A transparent and variable EPR operational fee that provides an economically efficient mechanism to encourage efficiency through industry utilisation of recyclable and recycled materials.'

Decision: SAG recommended a deposit for 10 cent or 20 cent fee subject to economic analysis which we expect to encompass the propensity for behavioural change.

Decision: SAG recommended a deposit fee will be a fee indicated on an applicable container and is mandatory for applicable containers.

Also Meeting 9 discussion on handling component – this needs to be clarified in DWD as to what SAG's expectation / definition of handling component is – described as being component of RRF and deposit fee – this needs to be accurately defined and stated for reasons of transparency and clarity. The issue of clarifying the handling component was further discussed in at the Meeting of 3 November for which the minutes have not yet been received.

Meeting 10 minutes (3 November) record that the comment in the Minutes of the meeting of 27 October under Handling Payment be amended to read:
"Considerable discussion took place on the payment for handling and the following points were noted:

- *RRF would be associated with improving the economic viability of recovering identified problematic applicable containers.*
- *RRF is a tool to minimise financial risk associated with CDS.*
- *In South Australia the handling payment is paid to recycling depots and is determined by industry.*
- *The container deposit would be included in the purchase price of a product and would be redeemable by purchasers. If the same container also attracted a resource recovery this fee would be used to assist payment for handling.*

It remains unclear as to what "fees or deposits" are being proposed. Is there three fees? a deposit on the container, a handling fee and a variable resource recovery fee?. It is desirable for members of the SAG to be clear on this crucial issue of fees and deposits otherwise how can the Minister or public be expected to understand what is proposed. This is a matter of absolute urgency and the AFGC request that its concern be noted and addressed.

15. Will be administered by an independent body that –

- **Manages the funds**
- **Audits the data**
- **Determines licence requirements**
- **Liaises and consults with stakeholders**
- **Promotes research and innovation**
- **Promotes the scheme**
- **Provides advice to government on matters that include container eligibility and fee levels**
- **Generally supports the operation of the scheme**
- **Seeks expert advice as required**

16. Will be enforced by government through regulation.

AFGC Response

The AFGC is opposed to unacceptable costs to our industry through the imposition of un-necessary regulations and legislation. There is already a cooperative agreement, underpinned by legislation, between all levels of government and industry to manage and reduce the impact of consumer packaging. The National Packaging

Covenant provides for industry and government to work together to make improvements in the way packaging is designed and managed.

The AFGC remains committed to effective voluntary approaches such as the Covenant, and has a strong willingness to work with Government to achieve objectives and targets under the Covenant (and wider than the Covenant where appropriate).

Additional regulatory measures must not impose undue costs and impediments to business and by association to consumers. It would be an industry expectation that any regulation proposed by government would be subject to a comprehensive and rigorous RIS.

17. Will have a governing Board which is representative of stakeholders and must include members with knowledge and skills in the following areas –

- **Producers (packaging; food and beverage)**
- **Resource recovery, waste management, recycling and logistics**
- **Local government**
- **Consumers and litter management State government**

AFGC Response

The AFGC opposes in principle the imposition of a mandatory container deposit system. Accordingly, should any invitation be issued to take part in any governing body/board we would reserve our position on participating.

WESTERN AUSTRALIAN
LOCAL GOVERNMENT ASSOCIATION

Policy Statement on CONTAINER DEPOSIT SYSTEMS

PREPARED BY THE

MUNICIPAL WASTE ADVISORY COUNCIL
"Getting the Environment Right"

December 2006

Status of this Policy Statement

This Policy Statement has been prepared by the Municipal Waste Advisory Council and adopted by the Western Australian Local Government Association. The Municipal Waste Advisory Council is a standing committee of the WA Local Government Association with delegated authority to represent the Association in all matters relating to solid waste management.

The Municipal Waste Advisory Council has been formed through collaboration with Regional Councils who are not ordinary members of the WA Local Government Association. The resulting body effectively represents the views of all Local Government bodies responsible for waste management in Western Australia.

Policy Statements adopted by the WA Local Government Association represent a consolidated viewpoint from local government and may differ from the positions adopted by individual member organisations. The Municipal Waste Advisory Council and the WA Local Government Association will strive to promote this Policy Statement and to act consistently with its contents. Individual Local Governments are encouraged to support them in this but are not bound by the document.

Policy Statements adopted by the WA Local Government Association are reviewed and new Policy Statements are developed regularly. The latest WA Local Government Association Policy Statements can be obtained from the website: www.wastenet.net.au

The Municipal Waste Advisory Council's member organisations are:

EMRC

WESTERN METROPOLITAN REGIONAL COUNCIL

GERALDTON GREENOUGH REGIONAL COUNCIL WASTE MANAGEMENT AUTHORITY

SOUTHERN METROPOLITAN REGIONAL COUNCIL
REGIONAL RESOURCE RECOVERY CENTRE

South East METROPOLITAN REGIONAL COUNCIL

MINDARIE REGIONAL COUNCIL

MUNICIPAL WASTE ADVISORY COUNCIL

Policy Statement on CONTAINER DEPOSIT SYSTEMS

Title:	WA Local Government Association Policy Statement on Container Deposit Systems (December 2006)
Background	The twin roles of Local Government Local Government has developed this policy with reference to its twin roles as a representative of the community and as a service provider. Local Government must represent community values since these are the fundamental basis for undertaking new challenges and continuing past work. Local Government must also apply its service provider expertise when considering means by which to achieve community benefits. This twin role is particularly significant with regard to Container Deposit Systems as many Local Governments have significant investment in resource recovery and their role as a service provider in this area will inevitably be significantly impacted on by the introduction of Container Deposit Systems. In carrying out its duel functions Local Government is required, under the amendments to the Local Government Act, to "use it best endeavours" to meet the sustainability principles. The state defines this as "meeting the needs of current and future generations through integration of environmental protection, social advancement and economic prosperity". The zero waste society – a sustainability vision Local Government considers that the vision of a zero waste society applies the sustainability principle to the task of developing far-sighted waste policy. This vision requires that waste generating behaviour by the producer, distributor and/or retailer and the consumer become linked to the costs of managing the impacts of waste and the materials currently consumed and discarded as waste in turn become valued as resources to be conserved, reused and recycled. Achieving the vision As the principle of Extended Producer Responsibility (EPR) has been previously endorsed by Local Government as a tool for achieving the zero waste vision, Local Government broadly extends this endorsement to Container Deposit Systems as a type of EPR scheme, in as much as the principles and elements of the System follow the Extended Producer Responsibility framework to advance the key outcomes required by this vision. Local Government considers that these key outcomes are: • Clear, sensible and effective designations of responsibility for the management of lifecycle impacts of products; • Improved valuation, pricing and incentive mechanisms; • Greater investment in infrastructure and research and development and continuous improvement; and • Greater transparency and accountability.

Statement of Policy	In its role as a representative of community views and values, Local Government will continue to have regard to the wider context in which it operates and will seek to give effect to the views and values of residents. 1. Community support for sustainability Local Government asserts that the community supports the sustainability principle and, as such, supports the introduction of a Container Deposit System that acts to meet "the needs of current and future generations through integration of environmental protection, social advancement and economic prosperity". The level of public support is evidenced by a recent poll which found 90% of Western Australians would support the introduction of a Container Deposit System (http://www.abc.net.au/news/newsitems/200606/s1654975.htm 05/06/06). 2. Community priorities Local Government recognises strong public support exists for specific items to be incorporated into a Container Deposit System for a variety of reasons including their iconic nature, their potential as a revenue source for community groups, their resource value and the level of nuisance they cause (e.g. broken glass, litter). It is recognised that this community concern is likely to act as a political impetus for such items to be incorporated into a Container Deposit System over and above items that might otherwise have a higher priority in a typical Extended Producer Responsibility scheme. Local Government considers that action on these items should not be stalled to concentrate on higher priority items as this is likely to undermine public and political support overall. In its role as a service provider, Local Government will assess proposed Container Deposit Systems with reference to the criteria set out in its Extended Producer Responsibility Policy: 3. Set clear objectives and targets A Container Deposit System must be specific and clear about what it seeks to achieve, how it seeks to achieve it, and provide means by which to assess whether these objectives have been achieved. The major objectives for a container deposit system are: a. Improving resource recovery In view of its support of the zero waste vision, Local Government supports a System that maximises resource recovery as its primary objective. b. Achieving a more appropriate sharing of waste management costs As a secondary objective, Local Government supports the aim of achieving a more appropriate distribution of waste management costs through a Container Deposit System. 'Appropriate distribution' is considered to be the redirection of waste management costs onto the producer, distributor and/or retailer and the consumer of an

item to better enable the market to transmit information about the total economic, environmental and social costs of container waste.

Support for this objective is qualified with the concern that any System too financially or administratively burdensome to Local Government, industry or the public will be unable to succeed. As such, the system outcome, outlined in section 5, of achieving best balance between environmental protection, social advancement and economic prosperity should be given due regard in considering how this objective will be achieved.

c. Reducing litter
Local Government recognises the ability of a container deposit system to reduce container litter and welcomes this as an additional benefit and objective of any system selected.

d. Increasing community awareness and involvement in waste management
Local Government recognizes the ability a container deposit system to act as a market-based educational tool to assist the consumer in making informed purchasing decisions based on the whole life-cycle impact of a product and welcomes this as another additional benefit and objective of any system selected.

4. Reflect appropriate priorities
Local Government considers that a Container Deposit System should be based on the recovery of given material types and therefore be able to encompass, but not be limited to, all metals, glass, liquid paper board, plastic (PET, HDPE and LDPE) and composite container types and not be limited to household wastes and beverage containers.

This principle is qualified in that Local Government considers industrial container waste should be excluded from the System in its introductory phase for the purposes of simplicity. After a 3 year establishment period, the suitability of industrial container waste for inclusion in the System should be reviewed.

The regulatory underpinning of the system, outlined in detail in section 7, provides responsive flexibility in adding or removing material and container types as appropriate.

The suitability of a specific material or container type (other than industrial containers) to be excluded from the system can therefore be assessed on an equitable, case by case analysis. When determining whether a container type should be excluded from the system, the following criteria should be used:

a. Does the material or container type cause significant environmental or social impacts?
b. Does the material or container type cause significant costs for waste processors?
c. Does the material or container type have unrealised potential for recycling / resource recovery?
d. Is the material or container type likely to be disposed of illegally?
e. Does the material or container type cause significant community concern?
f. Is there an alternative system in place to recover the material or container type effectively?

5. Establish an outcome-based system

Local Government favours a Container Deposit System that assigns clear responsibilities to participants within the product chain to achieve specific system outcomes.

The key stakeholders in such a chain are numerous including, but not limited to, the producer, the distributor, the seller, the consumer, the deposit recipient (Local Government through kerbside, community groups, an individual), the collector (Local Government through kerbside, point-of-sale proprietor, super-collector), and the processor.

Given the potential complexity of a comparison between different system attributes and the need to be sufficiently flexible to change with time, this Policy Statement does not seek to set the parameters of a preferred system, but rather considers that the responsibility chain should be assigned with regard to achieving the following system outcomes:

a. Best balance between environmental protection, social advancement and economic prosperity;

b. Investment in infrastructure, research and development and continuous improvement;

c. Financial and administrative transparency and accountability from all players in the chain; and

d. Recognition of additional infrastructure and transport costs for non-metropolitan governments.

Outside of setting specific parameters, Local Government does consider a key attribute of any system must be the hypothecation of unredeemed deposits into a central fund directed towards achieving the System's stated outcomes and objectives.

6. Differentiate between redeemable deposits and handling and resource recovery fees

Local Government recognizes that, separate to a redeemable deposit; unredeemable fees to meet handling and resource recovery costs will have to be levied. To assist in working towards the previously endorsed the zero-waste sustainability vision, Local Government considers that handling and resource recovery fees, not including the redeemable deposit, should incorporate, but not be limited to, consideration for:

a. Differentiating between materials to reflect the economic, environmental and social expense of reuse, reprocessing or disposal;

b. Reflecting changes in the relative values or impacts of container materials; and

c. Differentiating between different container sizes.

	7. Can be implemented in a timely fashion Given the national nature of product distribution, Local Government recognises that a national Container Deposit System is preferred over a state-based scheme as it enables greater financial efficiency through consistency in such areas as marketing, labelling and education campaigns and inherently incorporates the economy of scale. However, in the absence of the likely introduction of a national scheme within a reasonable timeframe, Local Government considers it necessary and reasonable to put in place a state-based deposit system unilaterally. Notwithstanding this, Local Government also recognises that in developing a unilateral deposit system, due consideration should be given for what are likely to be national norms in key areas such as system objectives, deposit amounts, treatment of unredeemed deposits, labelling and material and container types covered. 8. Legislative Underpinnings In recognition of the continually and rapidly changing nature of technology and industrial, environmental and social conditions, the System must have the flexibility to adapt appropriately. Legislation through regulations enables material and container type schedules to be readily amended to ensure best balance between environmental protection, social advancement and economic prosperity is consistently maintained in response to evaluation of the System. As such, Local Government considers that the provision of head powers for EPR regulations under existing or proposed waste management legislation to be the best mechanism for the introduction of a Container Deposit System. 9. Support claims with reference to credible evidence Reliable, reputable forecasting and robust arguments must be used to set clear baselines and performance targets for the System. Assessment of performance should be made to keep the System open and transparent through 3-yearly monitoring and reporting on all players in the chain. Changes to the System made should be made accordingly. In its twin roles as community representative and waste management service provider, Local Government has an obligation and a right to expect that proponents will demonstrate the ongoing merit of the System with reference to the unique WA context.
Date of Adoption	

Associated Policies:	Policy Statement on Extended Producer Responsibility (June 2004) Policy Statement on Waste Management Legislation (June 2004) Policy Statement on Household Hazardous Waste (December 2003)
Definitions:	Container Deposit System: A Container Deposit System is a type of Extended Producer Responsibility Scheme. It may be structured in many different ways but essentially relies on a recoverable deposit on containers encouraging consumers to return the containers to a retailer or collection centre for recycling for the deposit. 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. Sustainability: One of the most widely accepted definitions of sustainable development comes from the World Commission on Environment and Development (the Brundtland Commission), 1987 - "Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs." In the context of the Local Government Act , this definition is refined to incorporate the three key objectives of: • Environmental protection - achieving effective protection of the environment through prudent use of natural resources; • Social advancement – achieving social progress which recognises the needs of everyone; and • Economic prosperity - maintenance of high and stable levels of economic growth and employment.
End of Policy Statement	