



Government of South Australia

Zero Waste SA

BUSINESS PLAN: 2008–09 and Directions for 2009–11

Zero Waste SA

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Members of the Board approving this business plan

Member	Reason for appointment
Mr Allan Holmes (Chair)	Environmental sustainability, conservation and protection
Mr Jeff Tate	Local government and waste-related infrastructure development
Mr Lachlan Jeffries	Waste-related infrastructure development
Ms Roslyn DeGaris	Waste management industry and waste-related infrastructure development
Ms Megan Dyson	Member, Board of the Environment Protection Authority
Mr Vaughan Levitzke	Ex officio member
Mr Tom Spirat	Regional affairs and local government
Ms Ann Harvey	Economic, financial and risk management
Ms Cheryl Hill	Advocacy on environmental matters on behalf of the community
Vacant	

The Board is the governing body of Zero Waste SA and must consist of 6–10 members. The Board’s membership must include persons who together have, in the Governor’s opinion, practical knowledge of, and experience in:

- environmental sustainability
- local government
- waste management industry or waste related infrastructure development
- regional affairs
- economic, financial and risk management
- advocacy on environmental matters on behalf of the community.

The Board members, as listed above, satisfy the requirements of section 9(6) *Zero Waste SA Act 2004*.

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Zero Waste SA

Business Plan 2008–09

Foreword

Zero Waste SA is releasing its sixth business plan at a time of challenge and response: the evidence of climate change is challenging us to change our wasteful habits and the response from the community, industry and government is gaining momentum.

The community now recognises climate change as the number one environmental issue. Each of us needs the support to understand the impact of our lifestyles and what we can do to reduce our individual and collective carbon footprints.

Zero Waste SA's Business Plan 2008–09 demonstrates that it is actively working to help people reduce their impact and reduce waste.

The South Australian Government's sustainability and greenhouse agendas are driving nationally recognised environmental change. South Australia already has high recycling rates. In the waste arena, the state is known for Container Deposit Legislation, the proposed ban on single-use plastic bags, high performance kerbside collection systems, food waste recycling, and collaborative research and market development programs for the compost industry.

Having reduced waste to landfill in South Australia by over 11% in 5 years, Zero Waste SA is now concentrating on the more challenging task of helping business, industry and the community improve their overall environmental performance.

'Supply chain management', 'procurement choice', 'closed loop production' are not only terms that have entered the vernacular; they are actions being incorporated into standard operating procedures, often with the help and urging of Zero Waste SA. They reduce waste, and they minimise the greenhouse gas liability from waste production and disposal.

That is a liability we can ill afford and that Zero Waste SA is addressing in this business plan by researching approaches to waste avoidance and helping to improve industry resource efficiency. New programs for kerbside food waste recycling, commercial and industrial waste systems are planned.

Zero Waste SA is also looking after the interests of South Australian businesses by encouraging investment in recycling and reprocessing infrastructure, and investigating the potential for economic returns to resource recovery industries under carbon trading or emissions reductions programs.

Zero Waste SA will continue to build capacity with partners and collaborators. In 2008–09 a new partnership with the University of South Australia signals a widening of our networks and influence, and promises innovative solutions, marketing and behaviour change.



Allan Holmes
Chair
Zero Waste SA Board

1. Introduction

Zero Waste SA (ZWSA), established by the *Zero Waste SA Act 2004*, provides strategic policy advice and direction to government and stakeholders, in addition to undertaking programs and projects that will maximise waste reduction and promote recycling and ecological sustainability. It enlists other stakeholders in partnerships to bring about change.

Other Australian states have established strategies and organisations to bring about similar outcomes, with Western Australia recently establishing its own Zero Waste agency. ZWSA maintains strong links with those organisations to collaborate and share experiences, information and outcomes.

Cash flow planning is required to ensure that approved projects, which can have significant lead times for development and other approvals, can be funded beyond the financial year in which grants are approved. Several projects in this business plan have considerable budget carryovers from 2007–08.

ZWSA is having an effect, as evidenced by the remarkable reductions in waste to landfill (since 2003 there has been a reduction in metropolitan waste disposed to landfill of almost 11.6%). However, it is becoming more difficult to sustain reductions in waste to landfill in a growing economy – the reductions achieved by improved kerbside recycling collections, for example, are not as easily gained in other areas of waste management.

The effective doubling of the solid waste levy from July 2007 is an incentive to reduce waste to landfill – the impact of the levy increase will show over coming years. It also has the potential and unintentional consequence to increase illegal dumping, and this issue is one that is a challenge for both local government and ZWSA. Measures to reduce illegal dumping remain a high priority.

Data collection and analysis is becoming increasingly important as we attempt to monitor and review effectiveness of projects and programs. This is a priority area of investment for 2008–09.

The first mid-term review of the strategy began in 2007–08 and is providing an opportunity to highlight metropolitan vs. regional issues, and priorities for the future. The review is expected to be completed by the end of calendar 2008.

1.1 Vision and Mission

Vision: The achievement of zero waste.

Mission: To change the direction of waste management in South Australia to one that meets both the preferred approach of the waste management hierarchy and the principles of ecologically sustainable development.

1.2 Primary objectives and guiding principles

The primary objective of ZWSA is to promote waste management practices that, as far as possible:

- eliminate waste or its consignment to landfill
- advance the development of resource recovery and recycling
- are based on an integrated strategy for the state.

In the exercise of its functions, ZWSA is to be guided by:

- the waste management hierarchy
- principles of ecologically sustainable development as set out in section 10 of the *Environment Protection Act 1993*

- best practice methods and standards in waste management and the principle that government waste management policies should be developed through a process of open dialogue with local government, industry and the community in which all are encouraged to contribute to decision making.

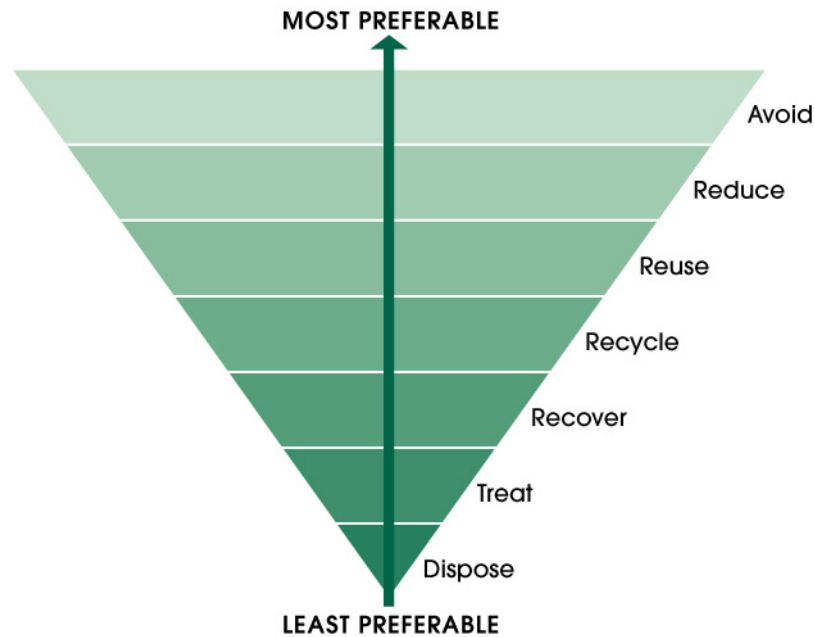


Figure 1. The waste hierarchy

1.3 Functions of Zero Waste SA¹

The functions of Zero Waste SA are—

- (a) to develop, co-ordinate and contribute to the implementation of government policy objectives in respect of—
 - (i) waste management for regions, industry sectors or material types; and
 - (ii) public and industry awareness and education in relation to waste management; and
 - (iii) programs for the prevention of litter and illegal dumping; and
 - (iv) market development for recovered resources and recycled material; and
- (b) to develop, adopt and administer the waste strategy for the State; and
- (c) to monitor and assess the adequacy of the waste strategy and its implementation; and
- (d) to provide assistance to local councils with arrangements for regional waste management; and
- (e) to contribute to the development of waste management infrastructure, technologies and systems; and
- (f) to commission, support and collaborate on research into waste management practices and issues; and
- (g) to advise the Minister from time to time about the amount to be charged by way of the levy under section 113 of the *Environment Protection Act 1993*;
- (h) to advise the Minister about any matter referred to it by the Minister or any matter it sees fit to advise the Minister on in connection with its responsibilities under this Act; and
- (i) such other functions as may be conferred on it by this Act or any other Act, or as may be assigned to it by the Minister.

¹ Section 1.3 *Zero Waste SA Act 2004*

1.4 Funding provisions

Funding for the programs overseen by the Board comes from the solid waste component of the waste depot levy, collected under the Fees and Levies regulations of the *Environment Protection Act 1993*.

The Environment Protection Authority (EPA) collects the levy of which 50% is paid into the Waste to Resources Fund to be used by ZWSA for its programs, 5% is paid into the Environment Protection Fund, and the remainder to part-fund EPA programs.

The fee for 2007–08 was \$23.40² per tonne of waste arising from the metropolitan area and approximately \$11.70² for non metropolitan waste.

ZWSA will also take advantage of other funding sources such as the National Packaging Covenant, and existing partnerships with organisations like KESAB Environmental Solutions, the EPA, industry bodies and local government.

1.5 Targets and Objectives

This ZWSA business plan reflects the objectives, actions and priorities of *South Australia's Waste Strategy 2005–2010* which has the following 5 key objectives.

Fostering sustainable behaviour

Simply providing information will not influence people to adopt more sustainable waste behaviours. The Waste Strategy recognises that considerable effort and innovation must be devoted towards fostering attitudes and behaviours that encourage people to change and adopt resource efficient behaviours.

Reduce waste

Achieving significant progress towards waste avoidance means changing the way resources are used in production processes and in products. This requires modifying behaviours, of households, producers and other participants in the economy. Resources must also be redirected towards more beneficial uses if substantially less waste is to go to landfill in South Australia. Reducing waste is about establishing markets for recyclable products – and designing products to last longer, to be disassembled, reused and repaired. Reducing waste is also about eliminating barriers, providing incentives to reduce, reuse and recycle waste, and about building our knowledge and data on waste and recycling.

Implement effective systems

South Australia needs to establish, maintain and increase the capacity of recycling systems and re-processing infrastructure in metropolitan and regional areas. Effective systems are essential for collecting, transporting, sorting, consolidating, transferring and re-processing recyclable and recoverable resources.

Implement effective policy instruments

Economic, regulatory and other policy measures must be introduced to give the necessary traction in the marketplace to encourage avoidance, reduction, reuse and recycling of waste. These instruments must also be effective to enable industry to make long-term investment decisions based on the knowledge that there will be consistent application of principles, approaches and standards.

Cooperate successfully

The goals and targets of this and future strategies will only be reached with the successful cooperation of a range of stakeholders.

² Treasury SA adjusts state government fees and charges each year as part of the budget process in line with a basket of goods analysis.

Within each of the 5 objectives, specific steps are outlined for meeting waste reduction targets and goals across the 3 broad waste-generating sectors of the community: municipal solid waste, commercial and industrial waste, and construction and demolition waste.

Key material recovery and recycling targets in the Waste Strategy are as follows, and form the higher level key performance indicators:

Waste stream	By 2006	By 2008	By 2010	By 2014
MSW	At least 25% of all material presented at the kerbside is recycled	50% of all material presented at the kerbside is recycled	75% of all material presented at the kerbside is recycled (if food waste is included)	Reduce waste to landfill by 25% (from South Australia's Strategic Plan)
C&I	5% increase in recovery and use of C&I materials	15% increase in recovery and use of C&I materials*	30% increase in recovery and use of C&I materials	Reduce waste to landfill by 25%
C&D	20% increase in recovery and use of C&D materials	35% increase in recovery and use of C&D materials	50% increase in recovery and use of C&D materials	Reduce waste to landfill by 25%

* It is anticipated that the Waste Strategy review will confirm that the C&I waste target has been achieved.

1.6 Where are we in 2008?

The report *Review of Recycling Activity in South Australia (2006–2007)* by Hyder Consulting³ on behalf of ZWSA showed that South Australia is a strong performer in recycling and recovery of resources.

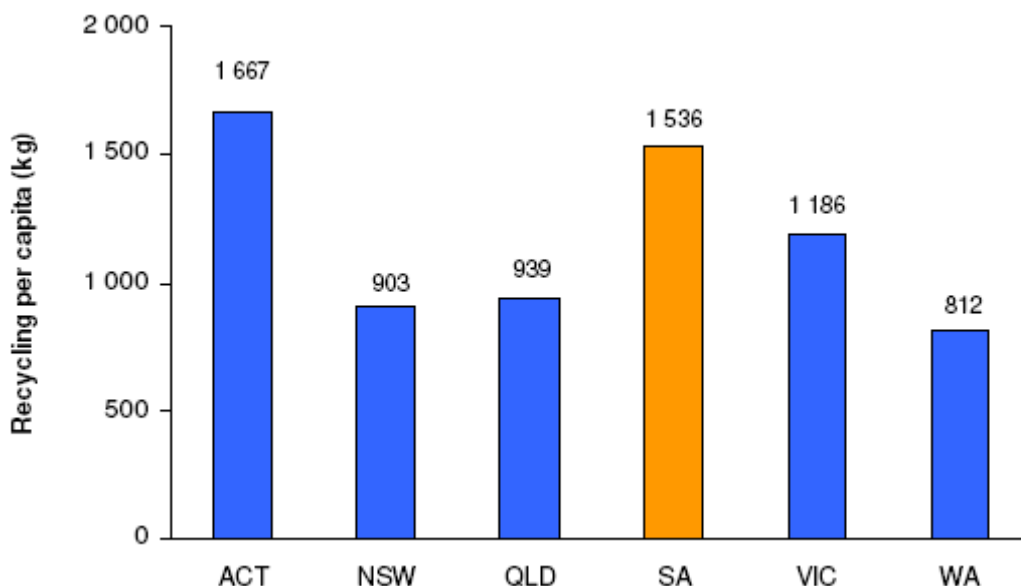


Figure 2. Reported per capita recycling activity, by state⁴

³The waste to landfill figure for years 2003–04 to 2005–06 identified here differs from that previously published due to new data on non-metro council waste becoming available; it lowers the diversion rate for these years by a small margin.

⁴ All data is the latest available for each state: SA and ACT, 2006–07; Qld, Vic and WA, 2005–06; NSW, 2002–03. ACT data is sourced from the 2008 progress update towards No Waste; Qld from *The state of waste and recycling in Queensland 2006*; Vic from *Towards zero waste 2005–2006*; WA from *Review of total recycling activity in WA 2006* report. Population statistics were sourced from the ABS. Note that materials included in recycling data in some states may be excluded from others. This variability is not believed to significantly affect the relativities shown.

Of the almost 3.6 million tonnes of waste generated in 2006–07 close to 2.5 million tonnes was recycled, which still leaves 1.1 million tonnes being disposed of to landfill.

South Australia performs well in construction and demolition waste recycling, beverage container recycling, steel, and leads the way in some plastics (predominantly those used in the beverage sector such as PET and HDPE polymers).

South Australia has a large network of privately operated drop off centres (some 110 across the state), and councils that are committed to sustainability and resource conservation by working with state government and industry. We also have industry leaders in the composting and construction and demolition recycling sectors.

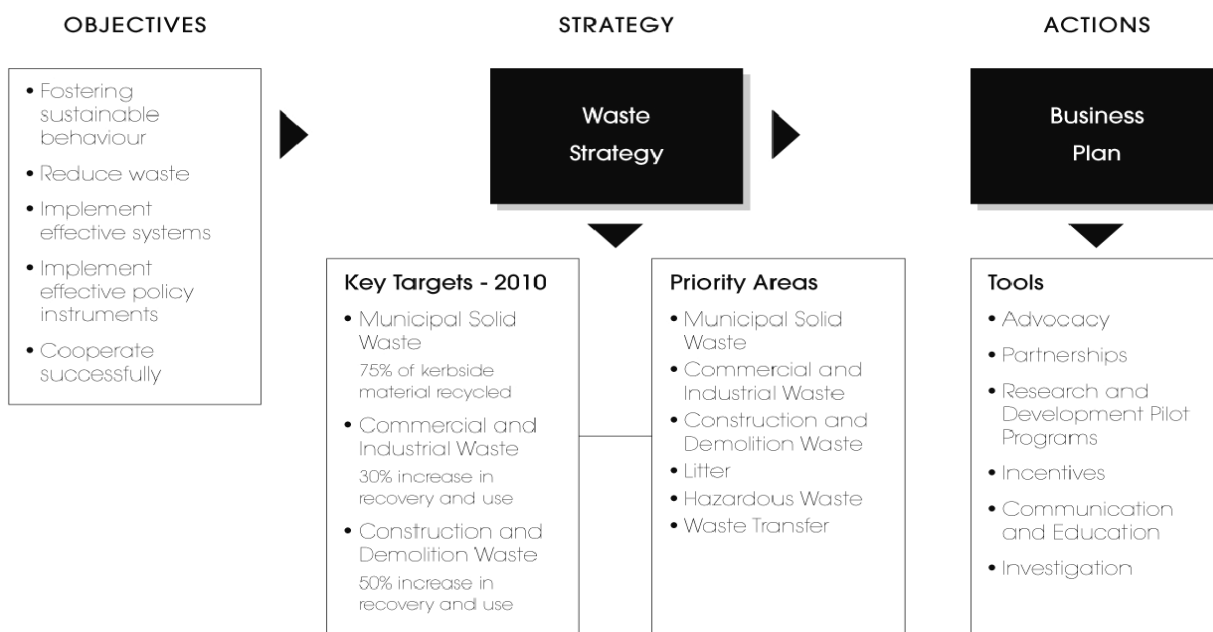
The 2008 Metropolitan Solid Waste target (50% of material collected at kerbside is recycled) has been achieved and this business plan seeks to encourage local government to embrace food waste collections as required by the 2010 target (75% of material collected at kerbside is recycled).

1.7 Organisation of this plan

This plan closely follows South Australia’s Waste Strategy. Each waste stream is identified and actions are listed under each. Those actions affecting all waste streams are identified as such and are listed in section 2.

Each program area lists actions within the Waste Strategy and provides an indicative budget for each subprogram, with outcomes and, where appropriate, key performance indicators.

Relationship between South Australia’s Waste Strategy 2005 - 2010 and Zero Waste SA Business Plan



2. All waste streams

South Australia's Waste Strategy includes a number of actions that were undertaken in its first 3 years, and a further list of actions that are either ongoing or listed for action in the final 2 years (2009–10). Significant in the actions for 2008–10 is: 'The Waste Strategy will be reviewed to assess its adequacy and implementation'. This mid-term review will be completed in 2008–09 with the reviewer required to:

- examine the 'history' of the Waste Strategy including grant programs review, benefit–cost analysis, recycling performance reports, public perceptions surveys, project evaluations
- provide a methodology to review the progress and performance of the Waste Strategy
- review the adequacy of the Waste Strategy
- identify best practice opportunities, strategies, policies, initiatives, instruments, that would position South Australia's next waste strategy in a leadership role
- identify important linkages with key state, national and, where relevant, international strategies, policies, initiatives, instruments
- provide a stakeholder engagement methodology
- identify how the mid-term review process will be used as a promotional and educational opportunity
- identify and report findings and suggest directions for the next waste strategy.

Key performance indicators

- A reduction in waste to landfill over the period, working towards a 25% reduction in 2014 (based on 2004 figures)
- A data management and reporting system to report on targets in the Waste Strategy
- Kerbside audits demonstrating a reduction in contamination of recyclables
- A survey providing accurate data about community perceptions and knowledge on waste issues

Progress to date

In the past 3 years, many of the actions and milestones identified in South Australia's Waste Strategy have been accomplished. Investment in capacity building, quality and partnerships has seen major changes in how we treat our resources. The first mid-term review of the strategy began in 2007–08 and is providing an opportunity to highlight metropolitan vs regional issues, and priorities for the future. South Australia has achieved a reduction in waste to landfill of almost 11.6% since 2004, in a growing economy. ZWSA programs and the increase in the solid waste levy have significantly contributed to this reduction.

ZWSA has invested heavily in monitoring significantly improved recycling performance across the state, in all streams. Systems to better manage this data and knowledge are being developed.

Key wastes to be the focus in 2008–09 are:

- hazardous waste
- electronics (e-waste)
- paper and cardboard
- organics (including food)
- hard waste.

2.1 Program: Measurement and Performance

Knowledge about waste streams, recycling performance, markets and consumption are all important to help monitor effectiveness of our programs and also identify where more effort is required.

A lack of quality data has been identified in several studies done for ZWSA, and the following projects aim to provide this information and analysis.

Project 2.1.1: Waste audits & market survey

Budget: \$65,000

2008–09 will fund another annual recycling survey. This survey collects data from recyclers and reprocessors in SA to provide stream by stream and waste type recycling tonnage.

Priorities for the next 3 years

Effective targeting of ZWSA funds depends upon good data relating to disposal trends. The move to kerbside collection of recyclables, accelerated by ZWSA performance incentives, makes auditing of materials received at transfer stations of particular importance. An audit of materials recovery facilities (MRFs) will assist the EPA by providing performance benchmarks that can be incorporated into licence conditions to raise performance across the industry.

Information in the *Review of Recycling Activity in South Australia 2006–07*, carried out on behalf of ZWSA by Hyder Consulting, will enable us to focus our attention on areas of greatest need and where we can get the best return on our investment. The report shows that since 2003–04 waste disposed to landfill has reduced from 1,277,892 tonnes to 1,144,429 tonnes (2006–07 data). This is despite an increase in total waste generated (3,319,668 tonnes in 2003–04 to 3,591,139 tonnes in 2006–07) and an increase in South Australia's population.

Project 2.1.2: Knowledge management and information systems investment

Budget: \$313,500

As more information is gathered, a system is required that can accommodate this data and provide information on: economic costs and benefits; infrastructure needs; future waste streams for attention; and areas needing regulatory underpinning.

Preliminary design of a data management system began in 2005–06; system acquisition and implementation began in 2007–08 and will continue through the term of this business plan.

A carefully staged modular approach to the development of a knowledge based system is being implemented.

Priorities for the next 3 years

The information system will incorporate reporting on waste and recycling data at a state level (metropolitan and non-metropolitan), and at an individual council level. Data will be captured from the municipal waste, commercial and industrial, and construction and demolition waste streams as well as litter and illegal dumping. The system will be designed with the view of capturing the data online, sourced from EPA waste data management and licensing systems, and from councils and recyclers. Data from audits and various reporting sources will also be captured. Funds will be required in future years for ongoing maintenance.

Project 2.1.3: Review of grants programs performance

Budget: \$0

Grants programs have played, and will continue to play, an important role in achieving the objectives of ZWSA. By applying financial incentives, ZWSA can accelerate programs that may have taken longer to come to fruition without government funding or encourage new projects to be initiated.

No reviews are forecast in 2008–09. The 2006-07 review found that schemes were well managed and comply with Australian National Audit Office Better Practice Guidelines for calling, assessment and selection processes.

Priorities for the next 3 years

The outcomes of grants schemes were assessed in 2006-07 and will be re-assessed in 2009-10 to ensure value for money and that ZWSA continues to meet best practice in grants management (e.g. application assessment, probity, follow up).

Project 2.1.4: Measuring community and business attitudes and behaviour

Budget: \$13,000

Significant work in 2004–05 identified and benchmarked community attitudes on waste management. This survey was the second ever undertaken in SA, and the first using face-to face interviews with householders.

This benchmark was re-measured in 2007–08 to ensure ZWSA communications programs remained relevant and achieved behaviour change. New data was collected on waste sectoral attitudes and behaviours i.e. commercial and industrial waste generators, and construction and demolition waste generators.

In 2008-09 a revised market research program will be developed to streamline data collection and enable a more timely collection of data.

Priorities for the next 3 years

ZWSA will focus more on omnibus surveys to collect information on public attitudes.

Project 2.1.5: Review of Waste Strategy and development of new strategy for 2010

Budget: \$165,000

Although not a statutory requirement, a mid-term review of the Waste Strategy is being undertaken to assess its adequacy and implementation, and determine the requirements for adjustment. The review will examine the history, performance, (including levies and other financial instruments and programs) and adequacy of South Australia's Waste Strategy 2005–2010. It will also examine leadership opportunities and key linkages and contain findings and directions to inform the next waste strategy. Appropriate engagement of community and other stakeholders will be a key component in the delivery of the mid-term review project.

Priorities for the next 3 years

The *Zero Waste SA Act 2004* requires waste strategies to be developed, to replace existing waste strategies, at intervals of not more than 5 years. South Australia adopted its first waste strategy in 2005, thus a subsequent strategy must replace that first strategy in 2010.

Planning for the new strategy will start in 2009. The mid-term review will inform and guide the development of the new strategy.

As targets in the current Waste Strategy are achieved, the focus will shift towards waste avoidance.

Project 2.1.6: Carbon offset options

Budget: \$86,000

This project will investigate the potential for economic returns to industries in the resource recovery sector under carbon trading or emissions reductions programs. For example, evidence from Europe⁵ shows that applying compost to agricultural land could increase the amount of carbon stored in these soils and contribute significantly to the reduction of greenhouse gas emissions. Carbon sequestration in soil has also been recognised by the Intergovernmental Panel on Climate Change and the European Commission as a possible measure for mitigating greenhouse gas emissions. The options uncovered by this project will help develop new programs and inform the waste strategy.

Priorities for the next 3 years

As carbon trading is envisaged for adoption across Australia and internationally, the role of the carbon economy in changing our systems of production including recycling, and waste avoidance cannot be over-estimated. It is envisaged that this area of investigation will increase over coming years.

2.2 Program: Partnerships

Key Performance Indicators

- Improved communications with the waste management sectors of councils and industry, as measured by surveys
- Improved ratings for the community's knowledge, attitudes and behaviours towards waste management and recycling over results from the 2005 market research telephone survey
- Number of hits and feedback received for householder recycling and waste management information published on the ZWSA website
- A centre of excellence for waste related research established at the University of South Australia

Project 2.2.1: Local Government Association

Budget: \$30,000

A successful partnership with the Local Government Association dates back to before the establishment of ZWSA and will continue for the period of this business plan (3 years) and be reviewed annually.

In 2008–09, finalise the process of consultation on the *Waste Futures* report by Bill Cossey.

Priorities for the next 3 years

- Support consideration by councils of the inclusion of food in kerbside organics collections
- Support the continued process of waste management reform by country councils
- Facilitate local government discussion of key issues of relevance to ZWSA

Project 2.2.2: Waste Management Association (consultation and conference)

Budget: \$10,000

The Waste Management Association of Australia, SA division (WMAA) provides a service in coordinating and articulating its members' concerns and suggestions. Resource efficiency plans and other initiatives regarding commercial and industrial waste streams will require greater consultation and significant involvement of the waste collection and sorting industry. This budget help the WMAA provide an essential link between the industry and ZWSA.

⁵ Favoino, E and Hogg, D. 2008. The potential role of compost in reducing greenhouse gases. *Waste Management & Research*, 26(1), 61–69.

A key deliverable for 2008–09 is a successful conference to be held in August of 2008. The WMAA will also be holding briefing sessions on a range of ZWSA issues.

Priorities for the next 3 years

Budget assistance to WMAA will be reviewed in 2008-09.

Project 2.2.3: Out of Councils and remote areas

Budget: \$100,000

South Australia's Strategic Plan and the Waste Strategy are state-wide in scope. Significant areas of South Australia are 'out of council areas' administered by Indigenous communities or the Outback Areas Community Development Trust. These areas contribute significantly to South Australia's economy but are remote and sparsely populated.

The Council of Australian Governments (COAG) announced in April 2002 that a new approach to working with Indigenous communities would be trialled in up to 10 regions across Australia. The Anangu Pitjantjatjara Yankunytjatjara (APY) Lands was selected as one of the COAG trial sites.

Recognising that better waste management is important to remote and indigenous communities the Aboriginal Affairs and Reconciliation Division of the Department of the Premier and Cabinet requested assistance from ZWSA to develop a waste management plan for the APY Lands. ZWSA has provided funding assistance – together with funding from the Commonwealth Department for Families, Housing, Communities Services and Indigenous Affairs – for developing the Regional Waste Management Plan and Implementation Plan for the APY Lands.

This year will focus on attracting Commonwealth funding for pilot systems in a number of communities across the APY Lands.

Priorities for the next 3 years

The next stage is to implement waste management trials in each major community across the Lands. Once the trials have been carried out, it is intended that the waste management initiatives will be rolled out across all the APY Lands. Contingent upon Commonwealth funding, ZWSA will assist in the implementation of the trials.

The Regional Waste Management Plan and Implementation Plan, and information from the trials, can be used to inform waste management strategies for other out of council areas and remote Indigenous communities.

Project 2.2.4: Partnerships with the tertiary education sector

Budget: \$240,000

Beginning in 2007–08, ZWSA sought expressions of interest from all South Australian universities, with primary objective of creating of a 'centre of excellence' to:

- build long-term capacity to undertake activities at the higher end of the waste hierarchy
- create a focal point for waste-related research.

Following expressions of interest from tertiary institutions in 2007–08, the University of South Australia was selected for this project. In its first year, the centre will be established with the appointment of a Chair.

Priorities for the next 3 years

The university, with ZWSA, will develop a ‘Zero Waste Centre’ and appoint a Zero Waste SA Chair for Sustainable Design and Behaviour. The project will build local knowledge and capacity, develop expertise through a pool of students, develop a knowledge and skills base for consultants, attract Australian Research Council Linkage and other appropriate grant funding, enhance South Australia’s reputation as a leader in environmental initiatives, and develop national and international research expertise in the field.\

Project 2.2.5: Sustainable communities incorporating Tidy Towns

Budget: 25,000

KESAB has committed to ongoing environmental education and action embracing rural communities, local government, schools and groups through a revamped Tidy Towns program, ‘Sustainable Communities’.

KESAB will engage the rural community to adopt and implement sustainable environmental practices, encouraging a whole of community approach through environmental education and action.

The program provides recognition of community action through annual awards presentations as well as recognition of councils for their waste and recycling efforts. An awards program will be conducted annually.

KESAB’s KPIs for this program are:

- deliver 10 Sustainable Communities rural workshops per year
- develop a minimum 4 case studies per year in consultation with stakeholders
- conduct participants’ consultation groups by December each year.

2.3 Program: Communication and Education

Our communities need to clearly understand the reasons why we need to recycle and reduce our associated environmental impacts. Links to greenhouse, climate change, resource efficiency and water use all interrelate with recycling and resource conservation. Our children are an important aspect of this initiative, as the issues and skills we deal with and develop today will need to be passed on, and learned from.

Project 2.3.1: Wipe Out Waste schools

Budget: \$172,500

The Wipe Out Waste (WOW) program provides training and resources to teachers that enable students to gain an understanding of waste, litter, recycling and related environmental issues as part of curriculum. It was developed on behalf of ZWSA by KESAB environmental solutions, the Department for Environment and Heritage (DEH) Environmental Education Unit and the Department for Education and Children’s Services (DECS). WOW is an integrated comprehensive waste education program supported by curriculum resources and teacher training and is the first program in Australia which spans kindergarten through to primary and secondary schools.

The WOW program is a fundamental adjunct to the Sustainable Schools Program run by DECS.

Since the program’s launch in September 2006, 263 teachers, parents, and school support and grounds/facilities staff from 79 metropolitan and regional South Australian schools, have participated in 16 workshops.

The program will continue in 2008–09 with its focus on regional and metropolitan schools. In particular, KESAB is committed to:

- teacher-trained project officers working in collaboration with schools throughout South Australia

- developing support school network and implement waste audit and teachers' training sessions
- developing support resources under banner of Wipe Out Waste and Sustainable Schools including new materials focusing on waste and greenhouse linkages and benefits of recycling
- investigating the opportunities to provide knowledge and systems support to the tertiary education sector.

Priorities for the next 3 years

The findings of a comprehensive evaluation of the program in 2008 will guide WOW into its next phase and continue to inform ZWSA funding provision and direction for the program. In the future the program will have more focus on product stewardship, consumption and related climate change impacts.

Project 2.3.2: Corporate communications, education and marketing (plastic bag phase out)

Budget: \$965,000

ZWSA's communications, education and marketing activities target industry, government and community. The objective of the program is to raise awareness of ZWSA's purpose, achievements and programs, and to enhance its stakeholder relationships by encouraging two-way communications, especially with local councils.

In 2008–09 ZWSA will manage the government's program to inform and educate the community in the lead up to the proposed ban on lightweight single-use plastic shopping bags. This will be a large undertaking and a priority.

Significant effort is also placed in online communications, ensuring that the community understands the need for recycling and engendering an awareness and resultant behaviour change that reflects principles of waste avoidance and reduction. Partnerships with the Buy Recycled Business Alliance and others to promote recycled products, or reuse are also included here.

Activities include production of the regular e-newsletter rewords, coordination of media events, briefings and site visits to promote policy and other initiatives. Other activities include preparing educational and promotional material for industry and the community, and supporting whole of government sustainability public relations initiatives. In response to the 2008 market research findings the program also focuses on improving access to, and the quality of information on, recycling and waste management.

Priorities for the next 3 years

The focus will be on public information and engagement on recycling will be complemented by further emphasis on linking consumption with waste and climate change. With the introduction of food waste collections, there will be a strong need to raise public awareness of contamination of recyclables, green organics and the greenhouse gas benefits of recycling.

2.4 Program: Incentives

A recent review of ZWSA's incentive programs over several years, suggests that they are making a significant contribution to reducing waste to landfill. Molino Stewart⁶ found these programs are generally effective in achieving our targets, and estimated that 473,000 tonnes of material were diverted from landfill in 2006 as a direct result of the programs. The amount of diversion is expected to increase as newer infrastructure is commissioned. The programs have also generated significant investment in recycling and resource recovery from councils and the private sector, and provided efficiency gains, improved quality of recyclables, and employment.

⁶ Molino Stewart. 2007. *A review of Zero Waste SA grant and financial incentives programs*. Report for Zero Waste SA.

It is also recognised that metropolitan needs are different from rural communities; the grants schemes reflect these differing needs.

Key Performance Indicators

- Deliver at least twice the ZWSA investment in assets
- Expand waste management and materials efficiency research and development capacity in South Australia (measured by total research investment into waste management and materials efficiency)
- Increase recycling activity in South Australia (measured through the Recycling Activity Study)

Project 2.4.1: Market development incentives

Budget: \$164,000

In 2008–09 ZWSA will be investigating how to most effectively increase the size and diversity of markets for locally processed recycled materials.

Note: \$125,000 is committed in 2008–09 from previous programs.

Priorities for the next 3 years

South Australia's Waste Strategy recognises the need to promote markets for recycled materials, improve the viability of the recycling sector and develop value-added recycled products.

Options for government intervention include:

- overcoming market barriers, such as product specification requirements that discriminate against recycled content
- raising awareness of the benefits and availability of recycled content products, for example through trade exhibitions geared for both the retail and commercial markets
- supporting commercialisation of new products that use recycled materials
- influencing government procurement to increase purchasing of products with recycled content
- assisting industry to improve business and marketing acumen (e.g. with marketing plans).

Market development is also a key component of many of ZWSA's existing programs including:

- recycling infrastructure incentives which include a focus of reducing contamination in recycled organics
- promotion of recycled content products in advocacy work with stakeholders including state government agencies
- supporting the Buy Recycled Business Alliance.

Project 2.4.2: Metropolitan Infrastructure Incentives

Budget: \$922,500

The primary object of the reuse and recycling infrastructure incentives project is to increase capacity for local reprocessing of recyclable material to high value end use products and invest in infrastructure that enables greater reuse of waste materials.

One of the key findings of the benefit–cost analysis of *South Australia's Waste Strategy* is that industry needs ZWSA assistance to reduce the cost of sorting recycled materials and increase capacity for local reprocessing of recyclable materials.

Accordingly, in 2008–09 ZWSA will prioritise infrastructure projects that increase recycling of:

Zero Waste SA Business Plan 2008–09

- commercial and food organics
- contaminated soil
- problematic waste streams such as e-waste and used tyres
- mixed and residual waste processing.

ZWSA will also support projects that lead to increased reuse of materials, through sorting, repair, and disassembly (such as reuse/revolve centres).

Note: \$552,182 is committed in 2008–09 from previous programs.

Priorities for the next 3 years

In 2009–10 ZWSA will be reviewing the success of the program and assessing reuse and recycling infrastructure needs for metropolitan Adelaide.

Project 2.4.3: Regional Implementation program

Key Performance Indicators

- Number of councils implementing regional waste management plans
- Percentage of waste diverted from landfill in regional areas

Budget: \$1,000,000

20% of South Australia's waste is generated in country areas. With lower population densities, the delivery of waste and recycling services in country areas can be significantly more difficult for country communities than in metropolitan areas.

Most regional strategies are now nearing completion or have been completed. Accordingly, ZWSA's emphasis is now moving from planning to implementation of those plans. ZWSA will continue to support improvements to waste management in country areas by providing funding to high priority projects identified in the regional context. These projects may include the development of transfer stations and resource recovery facilities in country areas and other activities that contribute to the efficient delivery of services and reduction of waste to landfill.

Note: \$845,794 is committed from the 2007–08 program.

Priorities for the next 3 years

Continued support for regional communities will remain a core activity of ZWSA. Funds committed in one year are usually expended in the following 2 years as projects gain approvals and achieve milestones. A call for applications will be made in 2008–09 and approved grants will be funded in future years.

2.5 Program: Advocacy

Promoting issues to the national level and gaining a common understanding of them is critical to establishing solutions to the waste problems that continue to cause environmental damage and negative economic or social impacts .

Strategy Actions

- Continue to work with the EPA, the Commonwealth, other states and territories, and industry sectors to develop a national approach to managing waste from products such as electronic appliances (including whitegoods and consumer electronics), computers and peripheral IT equipment, tyres, consumer packaging, end-of-life vehicles and plastic bags
- Work with the Commonwealth, interstate jurisdictions, the EPA and industry sectors to develop material-specific strategies for priority wastes
- Identify and attract Commonwealth funding for ZWSA programs
- Work with relevant government departments, interstate agencies and the Commonwealth to identify and remove subsidies and/or incentives that distort the market to benefit the extraction/harvesting of raw materials at the expense of recycled materials
- Continue to work with the Commonwealth, and other states and territories to develop purchasing and other policies that lead to changes in product design or characteristics that:
 - reduce the quantity of waste generated by consumption
 - reduce the toxicity of the waste generated
 - facilitate recycling or reuse

Project 2.5.1: National projects (EPHC waste working group)

Budget: \$213,000

At its 17 April 2008 meeting, the Environment Protection and Heritage Council (EPHC) supported a comprehensive mid-term review of the National Packaging Covenant to comprehensively and independently evaluate the Covenant's progress against its overarching objectives and targets. The National Packaging Covenant Council is expected to present the results of the review to EPHC at its meeting in November 2008.

Priorities for the next 3 years

At a national level, ZWSA contributes, particularly through the EPHC waste working group, to consideration of a number of waste issues including plastic bags, tyres, end of life vehicles, e-waste, waste oil, product stewardship, and the National Packaging Covenant.

This may result in a new policy direction focusing on extended producer responsibility and product stewardship, which is expected to require significantly more ZWSA policy advice and participation in the future.

Project 2.5.2: Environment Protection Policy

Budget: \$38,000

ZWSA will continue to assist the EPA's development of the Environment Protection (Waste to Resources) Policy and will part-fund the project officer for this purpose. It is anticipated that the policy will be tabled in Parliament in early 2009. This is an important project that will significantly influence the regulatory framework for waste management and recycling in SA.

3. Municipal solid waste

One-third of the waste stream going to landfill is municipal solid waste. Significant inroads have been made in recent years with councils adopting best practice kerbside collection of recyclables and waste: 3-bin systems are now the norm and diversion rates are approaching 50%, in some councils well above 50%.

Strategy actions

- Increase the recovery, recycling and use of metropolitan kerbside collected waste to 75% by 2010 (including food waste)
- Develop and promote public place and event recycling

Key Performance Indicators

- By 2010, 75% of all material presented at kerbside is recycled (if food waste is included)

3.1 Program: Problematic wastes

Project 3.1.1: Product Stewardship (e-waste, hard waste, hazardous waste)

Budget: \$214,000

Disposal of obsolete computer equipment to landfill is increasing throughout Australia. It is estimated that over 1.6 million computers were sent to landfill in 2008 in Australia.⁷

Many electronic products contain hazardous substances such as the heavy metals lead, mercury, cadmium and hexavalent chromium. Computer monitor screens contain about 2 kilograms of lead, depending upon size and make. Most of the substances of concern in e-waste are of no concern for human exposure or release into the environment during ordinary use and handling; however, such concerns may arise if e-waste is improperly handled, landfilled, incinerated, shredded, ground, melted or illegally dumped.

The potential to co-collect e-waste in conjunction with the household hazardous waste and farm chemical collection program will be investigated. ZWSA will sponsor a forum for local government on e-waste issues and initiatives.

Strategies for managing hazardous contaminants of recycling streams (e.g. asbestos, syringes) will also be a priority.

Priorities for the next 3 years

While work to better manage e-waste is under way at a national level, individual states will be expected to provide legislative and practical support to any e-waste management program. Where possible, ZWSA will continue to influence state and national policy development and state government procurement contracts and processes for e-waste.

Other problematic wastes requiring better management include CCA treated timber, tyres and some plastics (see also Program 7.1: Household Hazardous Waste and Farm Chemical Collection).

⁷ Environment Australia – Computer Waste Model at

www.environment.gov.au/settlements/publications/waste/electricals/computer-report/pubs/appendixb.pdf

3.2 Program: Incentives

Kerbside and related incentives have played an important role in having councils change their preferred collection of kerbside materials. High performing, easy to use systems are at the core of changing household recycling behaviour. These systems have also reduced occupational health and safety risks for those who collect kerbside materials.

Strategy Actions

- Develop, pilot, promote and evaluate community-based initiatives (subject to analysis of feasibility and effectiveness) including programs that seek to shift community attitudes, awareness and actions towards waste reduction and avoidance
- Consider supporting community programs that recognise best practice approaches to zero waste if waste management outcomes can be evaluated and measured
- Maintain a financial incentives program to encourage implementation by local government of high performance household waste and recycling systems/standards and to assist with continuous improvement; all councils to be eligible for funding, with criteria having regard to regional differences
- Identify public infrastructure requirements and best available technology economically available (BATEA) for systems as they relate to litter
- Assist local councils to put in place necessary infrastructure (e.g. recyclables bins)

Key Performance Indicators

- By 2010 75% of metropolitan kerbside collected waste recovered, recycled and used.

Project 3.2.1: School and community grants

Budget: \$150,000

The new School and Community Grants Program will target charities, service clubs and other not-for-profit organisations and schools that recover reusable resources. ZWSA developed the program because community-based organisations and some schools play an important part in the collection of materials for recycling or reuse and are often small-scale and also work at the higher end of the waste hierarchy (avoid, reduce, reuse). The School and Community Grants program is a combination of the Social Enterprise Grants and the Regional Implementation Program – Small Projects Component. Schools (including metropolitan and regional high schools and kindergartens) that have attended a ZWSA WOW workshop will also be eligible for funding.

Priorities for the next 3 years

The program will be reviewed in 2009–10 to give further direction and/or refinement to the program for future years.

Project 3.2.2: Kerbside incentives program (including food)

Budget: \$990,000

In 2002 councils diverted on average only 20% of kerbside collected material from landfill. *South Australia's Waste Strategy* has a target of 50% of all material presented at kerbside to be recycled by 2008 and achieving that target has required local councils to significantly improve kerbside collections.

To assist local government, ZWSA has been providing incentive grants to councils that achieve specified performance targets. Grants in excess of \$3.98 million have been approved for local councils whose kerbside recycling performance achieved a specified minimum standard. Funding is also tied to other waste

management improvements in local government, including green waste collection, hard waste recycling and community education.

By the end of the 2007–08 financial year all metropolitan councils had implemented, or had committed to, high performing kerbside collection systems (40 local councils in total) when all these collections are on stream they will service over 500,000 households.

Audits carried out during 2005–06 show that those councils offering three bin systems (240 litre bins for recyclables and green waste, with a smaller bin for the residual waste) are recycling up to 55% of kerbside material (average 45%).

Further funding will be provided as councils improve performance to the preferred standard. In 2008–09 it is proposed to aim this funding at assisting a number of councils to pilot domestic food waste collection, which is the area of domestic collection that will most effectively help reach the 75% diversion target of the Waste Strategy. This is in part contingent on the interest of councils in undertaking food waste collection combined with fortnightly residual waste. The pilots will prove food waste collections for roll-out throughout participating councils. Another area for investment is to facilitate recycling by residents in multi-unit dwellings, where waste and recycling facilities are often either poor, difficult to use or almost completely overlooked in the design phase.

Note: \$182,480 is committed from the 2007–08 program.

Priorities for the next 3 years

Food waste collection roll out across metropolitan Adelaide and some regional centres.

Project 3.2.3: Public Place and Events waste minimisation

Budget: \$35,000

ZWSA's, *Minimising Waste at Public Events – Guidelines for Event Organisers*, have been a practical foundation for managing events. The experience gained in using the guidelines, from diverse public events with varying complexity, is informing new guidelines which are now being finalised. The new guidelines advise how to minimise waste (with regard to the waste management hierarchy) and maximise recycling at public events. They also provide advice to councils on introducing public place recycling bins in 24 hour access high visitation public places.

The guidelines are an integral part of a proposal being developed by ZWSA which aims to incorporate the zero waste event management strategies into events throughout South Australia.

Priorities for the next 3 years

ZWSA expects that the guidelines will be widely adopted by event managers throughout South Australia. It is not anticipated that further funding will be required for event guidelines.

4. Commercial and industrial waste

The highly fragmented commercial and industrial (C&I) sector has a large number of very competitive small, medium and large-scale enterprises serviced by several waste and recycling providers. The huge diversity of waste generating activities requires a range of complementary approaches, including more responsibility being placed on producers and manufacturers for managing their products beyond the point of manufacture or sale, to the imposition of waste management regulations by government. This will require sustained emphasis across these business sectors, as well as development and implementation of strategies for collecting potentially recyclable material. ZWSA has developed a guide for the retail sector and is keen to work with others to do the same for their sector. It has sponsored business environmental awards, and actively supported Buy Recycled activities being built nationally by the Buy Recycled Business Alliance.

Strategy Actions

- Encourage adoption of sustainability practices by South Australian business and industry, including exploring linkages with water, energy and transport sustainability activities
- Using ZWSA landfill audit results and other waste generation and disposal data, identify specific industry sectors and/or companies (e.g. food processing/manufacturing, hardware, retail) and explore opportunities and initiatives for waste avoidance, reduction, reuse and recycling
- State government to continue to implement the Greening of Government Operations Framework to become a leader in the field of ‘green business’

Key Performance Indicators

- By 2010: 30% increase in recovery and use of materials from the C&I sector from 2004 weights

4.1 Program: Incentives

Project 4.1.1: Commercial collections and contracts

Budget: \$1,100,000

South Australia’s Waste Strategy calls for a 30% increase in the level of recycling and resource recovery of commercial and industrial waste by 2010 (from the 2004 baseline).

In 2006–07, South Australia recycled 2.4 million tonnes of material, of which 870,636 tonnes was C&I material⁸ (Nolan ITU, Review of Recycling Activity in South Australia 2006–07). However, significant volumes of readily recyclable material are still going to landfill.

Adelaide has high performance recycling (3-bin) collection systems for households and a strong history in source separation. South Australia is in need of an effective collection system for the C&I sector.

There is an opportunity through modified collection arrangements, workplace awareness and education for small-medium businesses, to separate materials into recyclable and residual waste, and in doing so increase the diversion of waste from landfill. ZWSA is thus developing an incentives program to encourage effective collection systems for C&I recycling.

⁸ Hyder Consulting. Review of Recycling Activity in South Australia 2006–07

Priorities for the next 3 years

This is likely to be an area of increasing investment for ZWSA to gain significant diversion of materials such as packaging and organics from landfill to more beneficial uses.

5. Construction and demolition waste

Significant change in this sector over the past 3 years has seen large investment in new infrastructure and innovation. Nevertheless, specifications are needed for products to improve their acceptance in civil works and other applications. South Australia recycles over 1 million tonnes per year of construction and demolition waste (1,008,197 tonnes in 2005–06), and is an Australian leader in the field.

Strategy Actions

- Encourage the segregation and reuse of waste at the point of generation where practicable and the transfer of materials to resource recovery/recycling facilities
- Work with building, housing and construction industry associations to facilitate waste avoidance, reduction, reuse and recycling by developing resource kits, guidelines, best practice sites, case studies, sponsorship, seminars and training programs

Key Performance Indicators

- Number of building sites adopting the Clean Site agenda
- Measure 50 randomly selected building sites for on-site practices, knowledge of Clean Site, and demonstration and take up of best litter and waste management practices.

5.1 Program: Communication and Education

Project 5.1.1: Clean Site building industry litter reduction, recycling and resource recovery

Budget; \$30,000

This long running ZWSA–KESAB program has gained recent momentum with both the Master Builder’s Association (MBA) and the Housing Industry Association (HIA) giving very positive feedback. The associations will continue to support the program through their Green Living and similar HIA initiatives.

The program aims to engage the building and construction industry to improve waste management and resource recovery practices on construction sites by implementing and adopting codes of practice and recycling systems.

During 2008–09 this program will continue and collaborate with partners (EPA, DEH, HIA and MBA) to encourage sustainable on-site practices underpinned by stronger compliance. In this project ZWSA will:

- work with SA Housing Trust and industry associations to develop best practice waste management systems and guidelines for the residential and commercial building sector, including using Housing Trust sites for data collection, analysis and demonstration projects
- support KESAB’s Clean Site program and links to equivalent industry programs such as GreenSmart.

KESAB has committed, in 2008–09, to:

- delivering rural/regional workshops
- delivering demonstration best practice sites in rural and metropolitan areas
- delivering forums and workshops in partnership with ZWSA and key industry stakeholders
- delivering on-site best practice demonstration days

- partnering with key industry stakeholders, especially local government
- implementing an integrated tertiary sector Clean Site learning and visitation module embracing civil building sites with focus on resource recovery practices and on site waste and resources environmental
- researching waste diversion and recycling volumes at targeted 'life cycle' construction sites
- promoting increased enforcement and compliance in collaboration with councils, EPA, HIA and MBA.

Priorities for the next 3 years

- Develop and incorporate best practice site management (waste minimisation, storage, collection, recycling and disposal) in training competency modules for TAFE and technical college students

6. Litter and illegal dumping

Litter is a significant issue particularly in metropolitan areas and on metropolitan beaches. Programs for litter reductions have been carried out by KESAB, largely funded by the state government, and will be expanded by ZWSA. The government is committed to litter reduction through KESAB.

Litter and illegal dumping adversely affecting charitable collection organisations will also be addressed. Illegal dumping is a significant cost to peri-urban councils, and it has been suggested that the increase to the solid waste levy will give rise to more illegal dumping. ZWSA is attempting to reduce this incidence through a number of actions, including provision of direct assistance to local government.

Strategy Actions

- Work with and provide ongoing funding support to KESAB to conduct its litter campaigns and recycling initiatives
- Work with the tobacco, take-away food and hospitality industries to develop and implement waste avoidance and litter reduction strategies, particularly for public places and events
- Implement a high-profile media and education campaign to encourage behavioural awareness of litter and illegal dumping issues
- Reduce illegal dumping by increasing education, information, investigation, surveillance and enforcement

6.1 Program: Investigations, reporting progress and data collection

Project 6.1.1: ZWSA and KESAB litter counts, trends, analysis and monitoring

Budget: \$60,000

KESAB has been monitoring litter incidence at 151 sites across the state on a quarterly basis since 1998. This is the best contiguous data set for measuring litter incidence in Australia. The aim of this program is to maintain effective litter data that monitor littering trends, item type and littering locations, and develop community education and awareness campaigns. The program will continue to be supported for at least the next 3 years. Data will be stored and analysed in the new ZWSA data information system under development (see Project 2.1.2: Knowledge management and information systems investment).

National litter monitoring was re-introduced in 2006, using the methodology developed by KESAB.

Priorities for the next 3 years

KESAB has committed to the following outputs for 2008–09:

- conduct quarterly counts at 151 sites throughout South Australia
- maintain comprehensive database and trend line of litter stream in South Australia
- integrate with Keep Australia Beautiful National Litter Index and Branded Litter study
- develop litter reduction strategies and resources based on litter count data.

6.2 Program: Communication and Education

Project 6.2.1: ZWSA and KESAB Litter awareness and resources

Budget: \$50,000

KESAB has committed to the following outputs for 2008–09:

- develop information resources targeting litter awareness for local government, schools and others
- implement targeted community litter awareness campaigns
- integrate litter education and resources into Wipe Out Waste schools program

Priorities for the next 3 years

This project aims to develop and regularly update a suite of contemporary litter awareness and information materials (brochures, posters, signs, including non English speaking), and make them available to councils, schools, community groups and stakeholders to increase awareness of litter disposal.

Extensive social research into community behaviour and litter and recycling issues highlights the need for new community and public place litter resources and strategies. The research findings identify targets and opportunities to focus on key issues and community sector groups, and resources and strategy options will be developed in collaboration with partners and stakeholders. The project will design and pilot information programs before implementation.

Project 6.2.2: ZWSA and KESAB illegal dumping and compliance

Budget: \$50,000

This project aims to work in collaboration with stakeholders to identify issues and barriers, scope options and trial strategies to influence stronger compliance and enforcement. In 2005, councils and stakeholders were surveyed regarding levels of illegal dumping, clean-up and management costs, and areas of high incidence. A plan is being developed that focuses on tools and options to encourage behavioural change that will reduce the incidence and impacts of illegal dumping

Priorities for the next 3 years

KESAB has committed to the following outputs for 2008–09:

- identify trial methodology and begin implementation
- assess trial findings and implement optional trials as identified
- develop and implement information database in collaboration with ZWSA and participating councils
- continue ongoing liaison and planning through steering group (ZWSA, EPA, councils, and KESAB)
- develop, distribute and install resources (signs, brochures)
- develop case study booklet and best practice guide resource based on trials outcomes

Routine data collection from councils to identify hot spots, problem wastes, and clean up costs will be a focus for analysis and future program design.

Should there be any increase in illegal dumping as a result of increases in landfill costs or other causes, it is likely that more resources will need to be applied in this area.

This program complements ZWSA grants under project 6.2.3.

Project 6.2.3: Assistance to local government for illegal dumping compliance

Budget: \$100,000

This project aims to provide direct assistance to councils that are faced with illegal dumping issues.

Building on the experience gained from trials in 2007–08 with KESAB and 6 councils, ZWSA will directly assist councils through the illegal dumping prevention grants. Funds will be provided for various tools and mechanisms, which can include signage and surveillance cameras, to combat dumping.

The first call for grant applications was made in October 2007 with the first payments to be made in the 2007–08 financial year. The second call for grant applications will be made in July 2008, with the first payments to be made in the 2008–09 financial year.

Priorities for the next 3 years

The program will be continued at least until 2009–10.

Project 6.2.4: ZWSA and KESAB litter reduction

Budget: \$30,000

KESAB has committed to the following outputs for 2008–09:

- develop information resources targeting litter awareness for local government, schools and others
- implement targeted community litter awareness campaigns
- integrate litter education and resources into Wipe Out Waste schools program

Priorities for the next 3 years

This project aims to develop and implement community litter campaigns and public place/media strategies in collaboration with targeted industry sectors, and to encourage ongoing corporate stewardship and partnership agreements focusing on litter reduction strategies and actions. Key areas for attention are highways, events, car parks and retail areas.

7. Hazardous waste

Strategy Actions

- Continue to fund a household and farm hazardous waste collection program across South Australia, and monitor and report the results
- Educate the community on proper household hazardous waste management practices and provide better information to stakeholders and the community on household and farm chemical collection facilities

Key Performance Indicators

- Undertake collections in 20 councils (metro and country)
- Increase participation by 10% over previous collections in the same area

7.1 Program: Household Hazardous Waste and Farm Chemical Collection

Project 7.1.1: Household Hazardous Waste and Farm Chemical Collections

Budget: \$593,000

The EPA operated (ZWSA funded) Hazardous Waste Depot at Dry Creek is open in the morning of the first Tuesday of every month (except public holidays) and some weekends. The facility has been invaluable to the South Australian community over many years but it is not always convenient for residents south of the city or for those with full-time work.

As a complementary measure to the EPA facility, ZWSA provides a mobile system for the proper disposal of household hazardous waste and farm chemicals across metropolitan and regional areas of the state. The program began in March 2004 and by the end of 2007 almost 860 tonnes of unwanted hazardous materials had been collected. More than 15,000 people have delivered their hazardous waste to collection points at 143 sites within 85 council areas and the Outback Areas Community Development Trust.

This program provides a more accessible service to the community of South Australia for the disposal of household hazardous waste. ZWSA manages the proper collection and disposal of the unwanted chemicals by an EPA authorised contractor.

Future options for the Household and Farm Chemical Collection Program and the Household Hazardous Waste Depot at Dry Creek were evaluated in 2007–08 and the recommendations from the evaluation will be considered during 2008–09. Expansion of the program may depend upon future funding arrangements.

Priorities for the next 3 years

Extended Producer Responsibility (EPR) will continue to be considered at a national level. The EPR policy approach extends the producer's responsibility for a product, physical and/or financial, to the post-consumer stage of a product's lifecycle. Initiatives and policies under which the producer or the retailer, or both, take back the product or its packaging after use are the clearest example of extending producer responsibility.

The large number of local, interstate and overseas product manufacturers and the huge diversity of product types, indicate that EPR across all hazardous household and farm chemicals will take time to implement. Nevertheless, once EPR is introduced on these products, and accessible systems are in place, ZWSA will be able to reduce and ultimately stop the Hazardous Waste service.

8. Waste avoidance

Avoidance of waste is the holy grail of waste management, at the very top of the waste hierarchy. In order to address waste avoidance, ZWSA must analyse how it will influence waste avoidance outcomes.

Strategy Actions

- Promote waste avoidance and reduction with householders and councils
- Identify and implement material-specific industry waste avoidance and reduction programs
- Assist companies and organisations to implement waste avoidance, reduction and recycling programs
- Demonstrate the benefits of adopting waste avoidance and reduction behaviours

Key Performance Indicators

- Develop a report outlining opportunities to reduce greenhouse gas emissions (carbon economy)

Project 8.1.1: Consumption and waste avoidance

Budget: \$204,000

Priorities for the next 3 years

A project will be developed focusing on consumption patterns, waste avoidance and reduction issues, and experiences that have been or are being worked on internationally. It is anticipated that the United Kingdom's WRAP methodology for undertaking food waste market research will provide the basis for research in South Australia, surveying householders about their consumption and wastage patterns. This will complement the current food waste pilot programs in rural and metropolitan councils.

The proposed research will provide insights for future programs and agency directions, to promote greater focus on waste avoidance and reduction, away from the lower levels of the hierarchy that are focused on recycling and resource recovery. The consumption program will also be linked to the research facility partnership and other related ZWSA programs that focus on education and communication.

Project 8.1.2: Industry – Resource Efficiency Assistance Program

Budget: \$686,000

Resource efficient manufacture can make a sustainable difference by reducing raw material, energy and water use and minimising waste production. Resource efficiency maintains a high profile in this plan, as we seek case studies and iconic companies to tackle their waste and related issues.

Similar programs undertaken before in South Australia, interstate and overseas have shown large environmental and cost savings realised by companies implementing resource efficiency measures. Actions can also be accredited, providing a new marketing edge for the organisation.

The Resource Efficiency Assistance Program (REAP) will help businesses and government understand, develop and implement cost saving resource efficiency measures and in doing so build capacity to deal with a range of rapidly emerging environmental, financial and social consequences.

Key elements are commitment from management, diagnostic evaluation, training programs, in-house technical support, financial support in the form of resource efficiency audits, and a wide range of support programs and opportunities for business and industry networking.

ZWSA will initially partner three government agencies operating as the Business Sustainability Alliance (BSA), Department of Trade and Economic Development, SA Water and the EPA, to deliver the REAP. BSA will be well positioned to provide the key competencies for REAP in the areas of waste, water, energy, lean manufacturing, construction, compliance, climate change, and sustainability.

Government can also lead by using its purchasing power to favour sustainable manufacture of goods and supplies. ZWSA will advocate for greater capacity in this area of demand driven change. ZWSA has been at the forefront of identifying eco-industrial precincts that can help establish infrastructure for this sector to the north and south of Adelaide. During the term of this plan, we expect these sites will further develop with new environmentally based businesses and partnerships between industry, and local and state government.

Priorities for the next 3 years

This is the key waste avoidance program for ZWSA and will have economic and sustainability benefits as well as developing a core of environmental knowledge within the business community. It is expected that the program will grow significantly over the next 3 years as more businesses sign up.

Key Performance Indicators

- At least 50 management diagnostics to be carried out by end June 2009
- At least 100 companies and businesses to be enrolled in the REAP by end June 2009

Project 8.1.3: Government – Resource Efficiency Assistance Program

Budget: \$100,000

State government is a significant generator of commercial and industrial waste across a myriad operations including offices, hospitals, national parks, emergency services, correctional facilities, TAFE campuses and schools. Thus government should set an example to the community based on the objectives of *South Australia's Waste Strategy*.

Government procurement processes and decisions can avoid and reduce waste at the beginning of a product's life, and ensure that what is purchased can be reused and recycled. Through its procurement power government can influence change in business and the wider community.

Evolving from the Greening of Government Operations Program, ZWSA's focus on state government in 2008-09 will have a practical approach through the Resource Efficiency Assistance Program where, in common with business and industry, state government agencies will have an opportunity to work with an alliance of agencies and experts to improve their management of materials, energy and water.

Priorities for the next 3 years

ZWSA will continue to play an advocacy and enabling role in greening state government by providing advice and input on a range of issues including procurement, 'green' aspects of accommodation fit-outs, and management of a variety of waste materials.

9. Corporate services

Budget: \$698,500

Key Performance Indicators

- Unqualified audit reports from the Auditor-General
- 90% of accounts paid on time

All organisations require administrative support and advice, and this budget funds the administration of ZWSA activities. Administration includes payroll, insurance and purchasing, as well as administrative support to the Board and to effective and efficient management of the Waste to Resources Fund.

Income and expenditure

INCOME (Waste to Resources Fund)	
50% of waste levy payments	11,671,000
Cash held 1 July 2008, carried forward (estimate)	8,413,000
Monies from external sources	791,500
Estimated interest earned	400,000
Estimated total funds available for financial year	21,275,500
EXPENDITURE (programs and administration)	
2.0: ALL WASTE STREAMS	
2.1 Program: Measurement and Performance	
Project 2.1.1: Waste audits and market survey	65,000
Project 2.1.2: Knowledge management and information systems investment	313,500
Project 2.1.3: Review of grants programs performance	0
Project 2.1.4: Measuring community and business attitudes and behaviour	13,000
Project 2.1.5: Review of Waste Strategy and development of new strategy for 2010	165,000
Project 2.1.6: Carbon offset options	86,000
Subtotal	642,500
2.2 Program: Partnerships	
Project 2.2.1: Local Government Association	30,000
Project 2.2.2: Waste Management Association (consultation and conference)	10,000
Project 2.2.3: Out of Councils and remote areas	100,000
Project 2.2.4: Partnerships with the tertiary education sector	240,000
Project 2.2.5: Sustainable communities incorporating Tidy Towns	25,000
Sub-total	405,000
2.3 Program: Communication and Education	
Project 2.3.1: Wipe Out Waste schools	172,500
Project 2.3.2: Corporate communications, education and marketing (plastic bags phase out)	965,000
Sub-total	1,137,500
2.4 Program: Incentives	
Project 2.4.1: Market development incentives	164,000
Project 2.4.2: Metropolitan Infrastructure Incentives	922,500
Project 2.4.3: Regional Implementation program	1,000,000
Sub-total	2,086,500
2.5 Program: Advocacy	
Project 2.5.1: National projects (EPHC waste working group)	213,000
Project 2.5.2: Environment Protection Policy	38,000
Sub-total	251,000
Total All Waste Streams	4,522,500
3.0: MUNICIPAL SOLID WASTE	

3.1 Program: Problematic wastes	
Project 3.1.1: Product stewardship (e-waste; hard waste; hazardous)	214,000
Sub-total	214,000
3.2 Program: Incentives	
Project 3.2.1: School and community grants	150,000
Project 3.2.2: Kerbside incentives program (including food)	990,000
Project 3.2.3: Public place and events waste minimisation	35,000
Sub-total	1,175,000
Total Municipal Solid Waste	1,389,000
4.0: COMMERCIAL AND INDUSTRIAL WASTE	
4.1 Program: Incentives	
Project 4.1.1: Commercial collections & contracts	1,100,000
Sub-total	1,100,000
Total Commercial and Industrial Waste	1,100,000
5.0: CONSTRUCTION AND DEMOLITION WASTE	
5.1 Program: Communication and Education	
Project 5.1.1: ZWSA-KESAB Clean Site building industry litter reduction, recycling and resource recovery	30,000
Sub-total	30,000
Total Construction and Demolition Waste	30,000
6.0: LITTER AND ILLEGAL DUMPING	
6.1 Program: Investigations, reporting progress and data collection	
Project 6.1.1: ZWSA and KESAB litter counts, trends, analysis and monitoring	60,000
Sub-total	60,000
6.2 Program: Communication and Education	
Project 6.2.1: ZWSA and KESAB Litter awareness and resources	50,000
Project 6.2.2: ZWSA and KESAB illegal dumping and compliance	50,000
Project 6.2.3: Assistance to local government for illegal dumping compliance	100,000
Project 6.2.4: ZWSA and KESAB litter reduction	30,000
Sub-total	230,000
Total Litter and Illegal Dumping	290,000
7.0: HAZARDOUS WASTE	
7.1 Program: Household Hazardous Waste and Farm Chemical Collection	
Project 7.1.1: Household Hazardous Waste and Farm Chemical Collections	593,000
Total Hazardous Waste	593,000
8.0: WASTE AVOIDANCE	
Project 8.1.1: Consumption and waste avoidance	204,000
Project 8.1.2: Industry – Resource Efficiency Assistance Program	686,000
Project 8.1.3: Government – Resource Efficiency Assistance Program	100,000
Total Waste Avoidance	990,000
9.0: CORPORATE SERVICES	
Salary and on-costs, office rent, etc	698,500
Total Expenditure:	9,613,000

Notes:

1. The EPA collects the waste levy pursuant to s113 of the Environment Protection Act 1993 and has provided these projections.
2. Budget amounts for each project include staff salaries associated with that project. Other administration costs, including accommodation and capital costs, are shown under 9.0 Corporate Services.
3. For some programs budget amounts include commitments from previous years.

Budget distribution

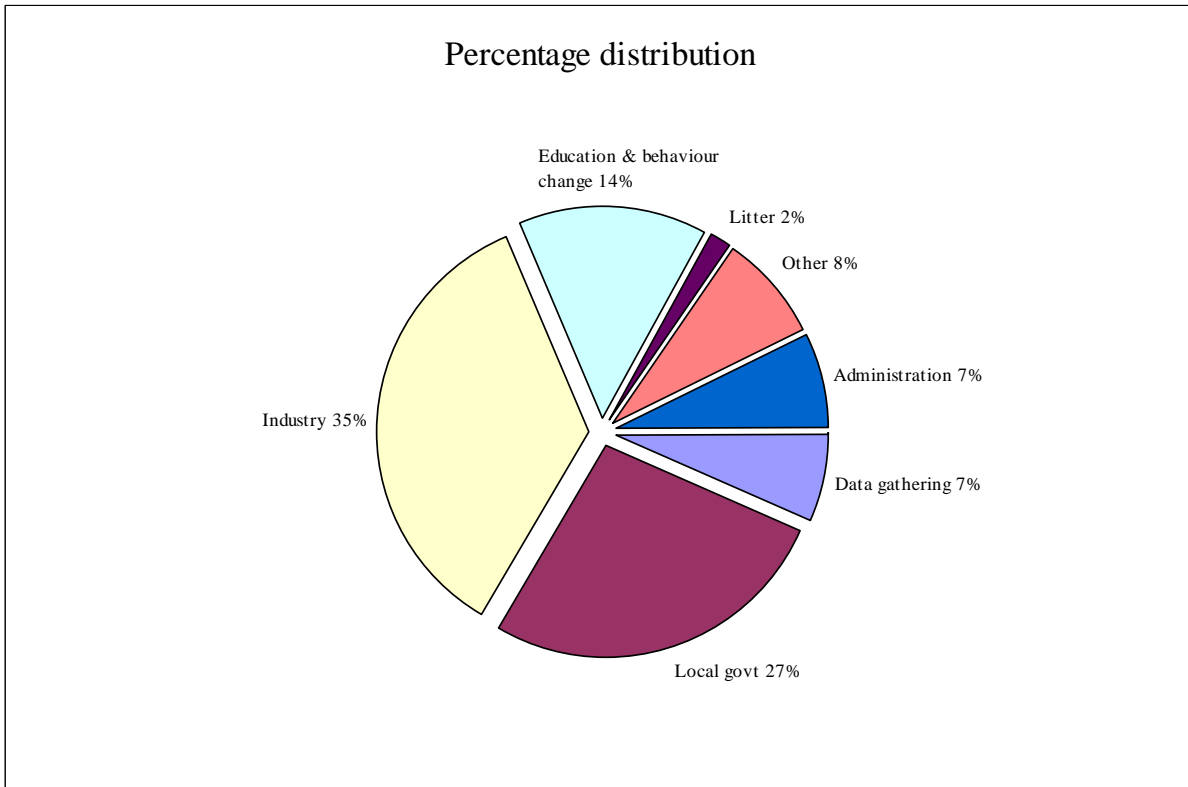


Figure 3. Distribution of budget across specific areas

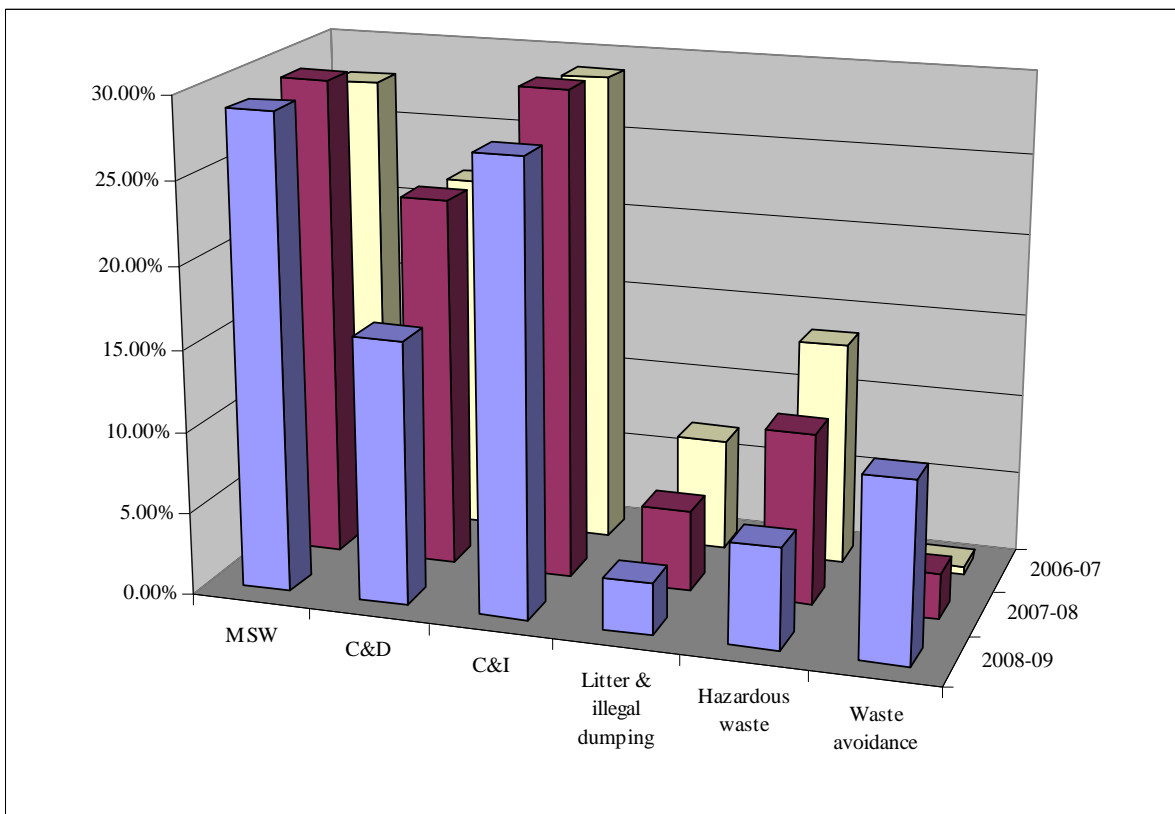


Figure 4. Proportion of budget by waste stream for current and previous 2 years