

Zero Waste SA



Government of South Australia
Zero Waste SA

BUSINESS PLAN

2014-15



AVOID • REDUCE • REUSE • RECYCLE

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Cover: Through the Industry Program Zero Waste SA is helping the South Australian wine industry to improve in the areas of waste, energy and water management and supply chain management. Pictured are Emmanuelle Walton, Wirra Wirra Winery with Meg Sommerville, Zero Waste SA.

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Foreword

Zero Waste SA is acknowledged nationally and internationally as a leader in waste management and resource recovery and in facilitating community engagement.

Since 2003, it has invested more than \$80 million on innovative, effective and well-targeted programs and projects that have stimulated councils, businesses and the community to reduce, recover, reuse and recycle. This has helped South Australia to reduce waste to landfill by 19.63% from 2002-03 to 2012-13 and achieve a resource recovery rate of more than 77%. These achievements are further detailed in this plan (see page 7).

South Australia's Waste Strategy 2011-2015 provides the framework for Zero Waste SA's business plan for 2014-15. It guides Zero Waste SA's work through two key objectives:

1. Maximise the useful life of resources through reuse and recycling
2. Avoid and reduce waste.

Against the Waste Strategy's two objectives, this business plan specifies goals and priorities for action across the three broad waste-generating sectors of the community: municipal solid waste, commercial and industrial waste, and construction and demolition waste.

In 2013-14, Zero Waste SA evaluated the work undertaken to achieve the Waste Strategy's objectives and targets. This review highlighted how Zero Waste SA's work has significantly contributed to the economy and quality of life of South Australians.

A small sample of the total programs delivered by Zero Waste SA since 2004 was assessed, identifying significant economic benefits for South Australia. For example, projects delivered under Zero Waste SA's Industry Program showed a net benefit of around \$7.8 million at a benefit cost ratio of 6.7. In other words, for every dollar invested by Zero Waste SA in resource efficiency, \$6.70 was returned in direct cost savings for South Australian industry. The economic value of the waste management and resource recovery sector and other economic gains from Zero Waste SA's work are detailed further in this plan (see page 8).

The review also identified there is significant potential for future gains in waste management and resource recovery, particularly in relation to:

- Planning for waste infrastructure to guide investment, reduce the cost of living, grow the economy and create jobs.
- Industry resource efficiency to continue to return environmental and economic benefits to industry and businesses.
- Government resource efficiency.
- The Recycle Right® household education program to encourage better recycling practices at the kerbside.

The State Government has foreshadowed the creation of a new body from 1 July 2015 to move to the next phase of the State Government's waste management strategy. This business plan outlines the activities it will undertake to work towards achieving the objectives of the Waste Strategy, with a focus on initiatives that will make lasting changes.

I commend the commitment of Zero Waste SA staff to deliver programs that have strong 'cut through' and strong stakeholder support, critical to the successful track record of the organisation.

It is dynamic and lean, employing skilled staff, and has impressive collective expertise that is called upon by all levels of government, business and the broader community.

To Zero Waste SA's partners, supporters, program participants and passionate advocates for the zero waste mission, thank you. We are creating a more sustainable future for South Australians through improved and leading edge practices.



Kevin McGuinness
Presiding Member, Board of Zero Waste SA

About Zero Waste SA

Zero Waste SA, established by the *Zero Waste SA Act 2004*, provides strategic policy advice, guidance and leadership to government and stakeholders to bring about change. Zero Waste SA establishes programs and projects that maximise waste reduction, and promote recycling and ecological sustainability. Zero Waste SA's supports the achievement of waste diversion goals and targets set by *South Australia's Waste Strategy 2011–2015*.

Further information about Zero Waste SA's primary objectives, guiding principles and functions as defined by the *Zero Waste SA Act 2004* and the goals and targets of *South Australia's Waste Strategy 2011-2015* are detailed at appendix 1.

Zero Waste SA's activities also involve increasing collaboration and cross fertilisation with other government agencies, recognising and supporting the Government's seven areas of focus for action: premium food and wine from our clean environment; realising the benefits of the mining boom for all South Australians; growing advanced manufacturing; creating a vibrant city; safe communities and healthy neighbourhoods; an affordable place to live; every chance for every child. Zero Waste SA's support for the State Government's areas of focus are shown at appendix 2.

South Australia's achievements in waste management and recycling

Landfill data for 2012-13 indicates that South Australia has reduced waste to landfill by 19.63% since 2002-03, equivalent to 245,728 tonnes of waste. This reduction has been achieved notwithstanding increased disposal of contaminated soils in recent years, peaking in 2010-11.

Recycling activity data collected for 2012–13 shows that South Australia remains a strong performer in recycling and recovery of resources. The 2012–13 SA Recycling Activity Report (Rawtec) shows that 3.45 million tonnes of materials were diverted from landfill and into recycling in 2012–13 with a diversion rate of 77.4%, the highest reported rate compared with other states and territories in Australia.

South Australia's recycling efforts have prevented the equivalent of about 1.23 million tonnes of carbon dioxide entering the atmosphere, which is the equivalent of taking approximately 281,900 passenger cars off the road. The report identifies other estimated environmental benefits resulting from recycling activity are:

- energy savings of 15,910 tera joules (TJ), equivalent to 2.8 million barrels of oil or the energy use by 309,400 average households in one year
- water savings of 13,160 mega litres (ML), equivalent to 5,260 Olympic sized swimming pools or the water use by about 69,250 average Adelaide households in one year.

The report estimates that the total 'direct' market value of resource recovered materials for South Australia in 2012–13 was \$299 million, or \$87 per tonne of resources recovered on average. Metals, organics, and paper and cardboard waste materials were the major contributors to this market value.

South Australia's total landfill disposal during 2012-13 was 1.01 million tonnes, a decrease of 18% from the 1.22 million tonnes recorded in 2011-12. The decrease in landfill disposal was mostly due to a fall in the volumes of contaminated soil to landfill from major infrastructure projects.

Since 2003-04:

- total reported resource recovery has nearly doubled, from 2 million to between 3.5 and 4 million tonnes each year
- the diversion rate has steadily increased from just above 60% to between 75 and 80%.

Economic value of the resource recovery sector

In 2012-13, Zero Waste SA commissioned a review of the Waste Strategy, which was undertaken by a consortium of leading international waste researchers and advisers that worked with local firms Rawtec Pty Ltd and EconSearch Pty Ltd. The review identified the significant value of the waste management and resource recovery sector and its contribution to the South Australian economy.

The review showed that the value added directly by the industry in 2011-12 was \$280 million or \$504 million once multiplier effects are taken into account.

Employment in waste management and resource recovery related industries is estimated to be 2,900 jobs, or 3,100 when measured as full-time equivalents (FTEs). With multiplier effects included, there are an estimated 4,700 jobs in total (4,800 FTEs).

Economic evaluation of Zero Waste SA programs

The review also assessed programs representing approximately 10% of the overall total investment in activities by Zero Waste SA since 2004. Of particular note:

- A cost/benefit analysis of 24 small and medium sized Industry Program clients based on the results of implementing resource management and process efficiency revealed a net present value (30 years) of around \$7.8 million resulting in a benefit cost ratio of 6.7. In other words, for every dollar invested by the Industry Program, there is a direct benefit of \$6.70 to the South Australian economy.
- Zero Waste SA support for establishing the three-bin kerbside waste collection system across metropolitan councils delivered a net benefit of \$22 million at a benefit cost ratio of 2.6.
- Three individual regional waste management and recycling infrastructure investment projects delivered a net benefit of \$3.39 million at a benefit cost ratio in the range of 1 to 11.5.



Key objective: Maximising the useful life of materials through reuse and recycling

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Achieving this key objective requires action to:

promote green innovation (for example, promote the development and uptake of new, cleaner technology)

recognise the lifecycle of products and account for the resources used

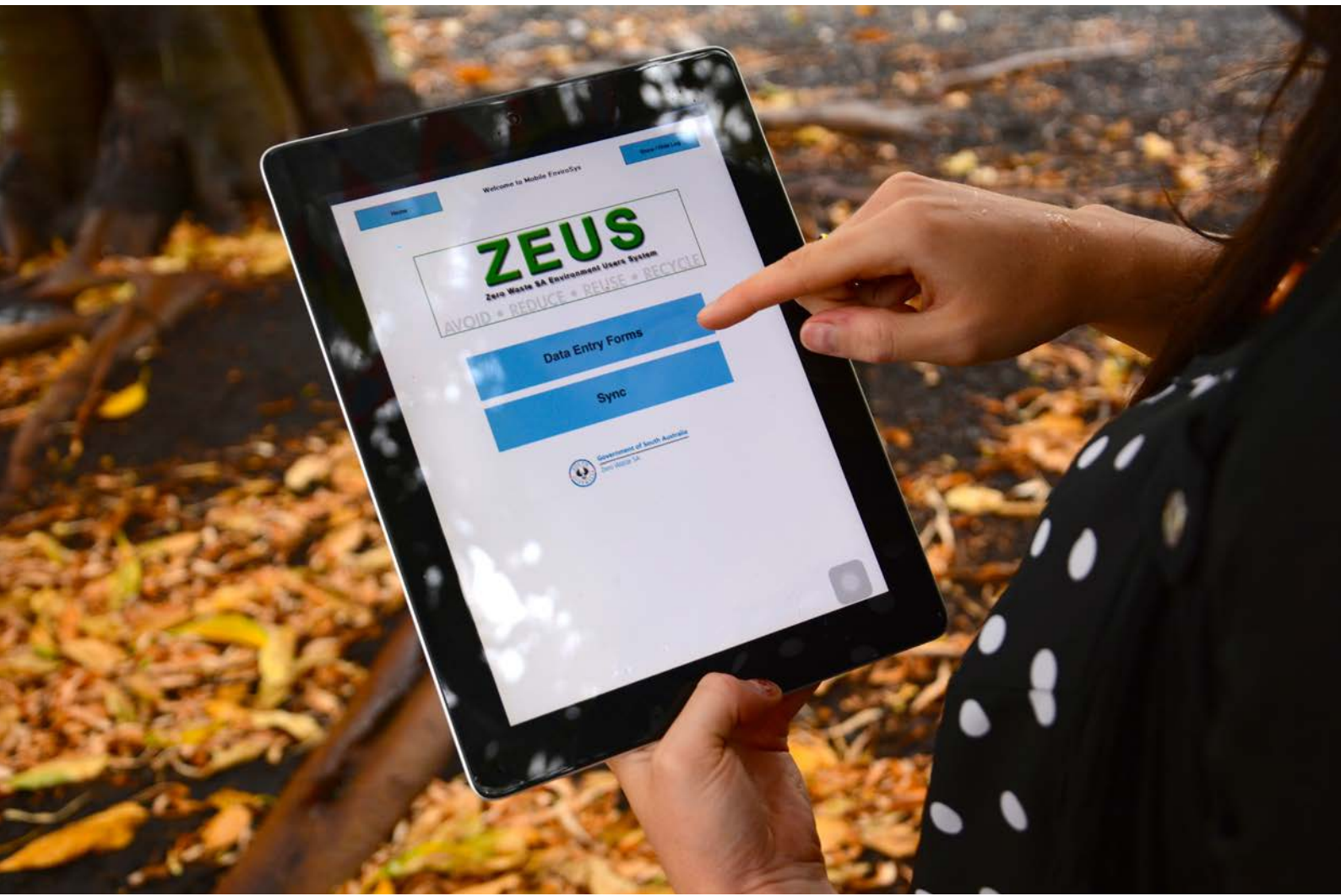
develop and adopt innovative products and services that help reduce our ecological footprint to create comparative economic advantage

Increase and maintain capacity of recycling systems and reprocessing infrastructure

implement regulation that drives progress and supports long-term investment decisions

identify new opportunities through developing and promoting innovative solutions

monitor and evaluate the effectiveness of appropriate price signals and legislative instruments.



Measurement, analysis, evaluation and reporting to support targets and assess the adequacy of the Waste Strategy

Building knowledge and data about waste and recycling is essential to support the achievement of the Waste Strategy's targets and to assess its adequacy. To monitor how effective Zero Waste SA's programs are, and to identify areas for additional attention, Zero Waste SA needs to know and understand what is happening with waste streams, recycling performance, markets and consumption in South Australia. Several studies prepared for Zero Waste SA have highlighted the lack of quality data about the sector, which the following programs aim to rectify.

Waste audits and recycling activities study

This annual survey collects data from South Australian recyclers and reprocessors to provide stream by stream and waste type recycling tonnages. The data summarises the current market, including its market size and strength. Previous surveys have shown a steady increase in recycling.

2014-15 Budget: \$78,000

Zero Waste SA Environmental User System (ZEUS)

The Zero Waste SA Environmental User System – known as 'ZEUS' – is a valuable knowledge based system built by Zero Waste SA to facilitate the monitoring, analysis and reporting on waste reduction targets in the Waste Strategy.

As more waste, recycling and resource recovery data is gathered, a management and reporting system is needed to accommodate and extract information on:

- recycling activity
- waste (tonnes) to landfill by waste stream (municipal solid waste, commercial and industrial waste, and construction and demolition waste)
- litter
- economic and environmental costs and benefits
- infrastructure needs
- areas needing regulatory underpinning.

Zero Waste SA will continue to collect, store and monitor data in ZEUS on illegal dumping, household hazardous waste and farm chemicals, municipal solid waste, composted organics, container deposit, litter, landfill, and grants and incentives.

2014-15 Budget: \$251,000

Waste Strategy policies

Zero Waste SA takes a lead role in developing policy and regulatory solutions to support the Waste Strategy development and implementation. Areas of focus for 2014-15 will include:

- planning for waste infrastructure
- promoting better design of the built environment
- contaminated soil – remediation and reuse opportunities
- developing a State Government position and policy on waste to energy
- developing other policies as required and consistent with the Waste Strategy.

Planning for waste infrastructure

A critical finding of the Waste Strategy review is that the waste and resource industry is estimated to require some \$400 to \$700 million of new investment over the next 10 to 15 years in order to address critical infrastructure bottlenecks – for example, new resource recovery facilities to serve the southern suburbs, replacement of the stock of existing equipment, and putting in place a complete network of strategic and regional resource recovery facilities across the state. Developing more efficient resource recovery facilities reduces the need for new landfills or alternative waste disposal facilities.

Developing effective recycling systems has helped reduce the costs of kerbside collection for South Australians, keeping council rates lower than they might otherwise have been. Good planning and strategic investment in resource recovery infrastructure has also reduced the costs of these waste and recycling services even further for households and businesses.

Continuing to plan and coordinate the scope and scale of the State's strategic waste management infrastructure requirements in a way that is technically appropriate, financially viable and socially acceptable is vital.

To assist guiding investment decisions for waste and resource recovery, Zero Waste SA will commence the preparation of a waste infrastructure plan for South Australia in consultation with other government agencies such as the Department of Planning, Transport and Infrastructure, the Environment Protection Authority and the Department of Manufacturing, Trade, Resources and Energy. The plan will cover the next 30 years and will take into account population issues, land use and transport planning to maximise the economic return from waste materials in the state.

Promote better design of the built environment

Appropriate infrastructure for collecting waste and recycling, particularly in multi-unit dwellings, will be important to maximise the recycling performance of cities and to achieve the Waste Strategy target of 70% municipal solid waste diversion by 2015. Building and retrofitting of commercial and residential development and construction work can strengthen the ability to move towards a more sustainable use of building materials and practices.

Zero Waste SA will work in partnership with key stakeholders to develop a best practice guide and technical standards to encourage a consistent approach for waste and recycling management in medium density, high density and mixed use developments. Zero Waste SA also provides advice to state and local government planning agencies in relation to new developments, including transit oriented developments ('TODs'), urban infill development and major private sector developments. This initiative has strong linkages with the University of South Australia's Zero Waste SA Centre for Sustainable Design and Behaviour, councils and private sector developers.

Contaminated soil – reuse and remediation opportunities

The Waste Strategy identifies remediation of low level and high level contaminated soil for reuse as a priority for action.

Contaminated soil disposal to landfill has increased in recent years, particularly as major infrastructure projects are developed. Funding in 2012-13 has enabled development of an important Stage 1 background study on contaminated soils in South Australia to ascertain the profile, current treatment technologies, local industry and research and development capabilities, and opportunities and impediments to the reuse of contaminated soils.

Since then, Zero Waste SA and the Environment Protection Authority have jointly progressed a Stage 2 Waste Soil project. A consultation summary paper on waste soils in South Australia has recently been completed which summarises findings of the Background Paper and incorporates a case study illustrating financial cost estimates associated with reuse of low-risk waste soils in comparison to landfill disposal.

Three major infrastructure projects were selected for the case study to illustrate waste soil 'mass flow' and potential financial cost savings that could be achieved if all arising waste soil had been diverted for reuse. This showed a considerable cost saving of over \$7.8 million would have been achieved if all landfilled low risk waste soil materials had been reused for filling.

South Australia's current practice with waste soil management has prevalence towards a 'dig and dump' approach (that is, excavating, transporting and disposing of waste soils to landfill). The 'dig and dump' approach is costly and not sustainable, especially from a long-term economic, environmental and societal standpoint.

This approach represents a lost opportunity, particularly because the majority of waste soils in South Australia are relatively low-risk materials that are permitted for reuse under the current Environment Protection Authority's Waste Derived Fill Standard.

Based on the findings of the consultation summary paper, Zero Waste SA will seek to continue its collaboration with the Environment Protection Authority and in partnership with it, commence stakeholder consultation with a view to developing a whole-of-government approach to sustainable management of waste soils in South Australia.

Waste to energy

The Waste Strategy recognises the need to support new technologies that either enhance performance or replace landfill as a disposal option, consistent with the guidance of the waste hierarchy.

In 2012-13, Zero Waste SA undertook a review of current waste to energy technologies globally, the associated investment profile, relevant policy settings, and key drivers and barriers for waste to energy. The report has been made publicly available on the Zero Waste SA website and has provided the basis for cross agency collaboration and discussions.

Development of a government position and associated policy will provide a better understanding of the opportunities and priority areas associated with recovering energy from waste streams without circumventing viable options of higher value uses. The policy will also enable the government to respond to waste to energy proposals in a consistent and effective way.

Other policy work

The Waste Strategy recognises the importance of a number of specific material waste streams such as organic waste (including food), electronic waste, plastics and hazardous waste where development of specific policies may provide an understanding of opportunities and guide future direction and use or management of these materials. Zero Waste SA will undertake policy work in these areas where required. This will also support materials banned from landfill under the Environment Protection (Waste to Resources) Policy 2010.

The *Zero Waste SA Act 2004* requires waste strategies to be developed, to replace existing waste strategies, at intervals of not more than five years. South Australia adopted its first waste strategy in 2005, and was replaced with the current waste strategy in 2011. The current legislation requires that a subsequent waste strategy replaces the 2011 waste strategy. Zero Waste SA will also consider the findings and directions of the review to guide the development of the next waste strategy for 2016-2021.

Transitioning for the future

As part of its Environmental Protection 2014 election commitments, the South Australian Government announced it would create a new body to advance the next stage of the State's development in waste management.

In 2013-14, Zero Waste SA undertook a review of South Australia's Waste Strategy 2011 2015 to assess progress with implementation as well as determining any requirements for adjustment. The review examined the evolution of waste management policy in South Australia, international developments in resource recovery, the economic performance of selected Zero Waste SA programs, leadership opportunities and key stakeholder linkages.

Alongside consultation with relevant stakeholders, the review will provide a strong basis in which to determine the priority functions for a new body. During 2014-15, Zero Waste SA will assist the transition to the new body by providing support for the legislative, policy and administrative requirements to form the new agency.

2014-15 Budget: \$458,000

Municipal solid waste (MSW)

The Waste Strategy identifies the following priority actions for ‘maximising the useful life of materials through reuse and recycling’ in the MSW stream:

- developing incentives for successful food organics collection and treatment
- improving feedstocks to maximise value of source separated systems
- improving:
 - » networks for drop-off of non-kerbside collected materials (for example, electronic waste)
 - » sorting infrastructure
 - » value-adding of materials
- coordinating and advocating for national solutions to problematic wastes (for example, packaging and hazardous wastes)
- encouraging better contracting and monitoring for household collection services
- supporting the implementation of the Environment Protection (Waste to Resources) Policy 2010
- monitoring and reviewing kerbside collection systems to ensure maximum performance
- assisting local government to review, update and implement regional waste management plans
- encouraging reuse of materials or items through refurbishment
- supporting coordinated and integrated household recycling education campaigns such as Recycle Right®
- developing resource information to assist non-metropolitan councils to divert waste from landfill
- reducing contamination arising from collection vehicle compaction rates
- developing guidelines for residential waste and recycling services associated with higher density urban living

Kerbside waste incentives

A partnership between Zero Waste SA and local government supports the introduction of food waste recycling by councils.

Food waste represents about 44% of household residual waste (waste left over after recyclables are removed) and 19% of total household kerbside waste. In metropolitan Adelaide, food waste makes up about 3.3 kilograms of a household waste bin presented for kerbside pick-up each week.

Current high performing kerbside collection systems, including fortnightly collection of green organics, achieve an average diversion rate of 52%. By including food waste into the green organics bin, diversion rates of up to 70% are achievable.

Food scraps are a valuable resource which can be turned into compost. Soils in South Australia are deficient in organic matter and can benefit from compost in many ways.

South Australian councils are now increasingly offering food waste recycling to householders following the successful completion of a pilot project in 2010 which involved 17,000 households across 10 councils – the largest pilot of this type in Australia at the time.

Zero Waste SA has committed funding to help interested councils implement sustainable and efficient food organics recycling systems through the Kerbside Performance Plus Incentives Program.

To date, approximately \$2.45 million has been awarded to 22 councils under three rounds of funding which will help about 188,900 households to increase their recycling efforts.

\$300,000 in incentive payments will be provided in 2014-15 to councils that implemented household food waste recycling programs in 2013-14. This funding provides support payments following the achievement of agreed waste diversion targets.

Other Zero Waste SA programs addressing food waste include:

- Industry Program – Resource assessment and evaluation is working with manufacturers to identify opportunities for greater efficiencies in food manufacturing processes and capturing food waste generated in industry.
- Commercial food waste incentives seeks to introduce robust collection systems in commercial and industrial premises.
- Kerbside waste incentives is focused on the introduction of food waste collection in households
- Recycle Right® household education will be expanded to support household food waste recycling systems implemented by councils. To assist households without access to kerbside food waste collection systems, Recycle Right® provides educational fact sheets for establishing and maintaining home worm farms and composting systems.

2014-15 Budget: \$300,000

Recycle Right® household education

The Recycle Right® education campaign encourages householders to recycle correctly in an effort to reduce the incidence of placing the wrong materials ('contamination') in kerbside-collected recycling bins.

This campaign continues to be developed in close collaboration with the South Australian Waste Educators Working Group (Waste Management Association of Australia – SA Branch), Local Government Association of South Australia, Visy Recycling and the recycling and waste industry.

The campaign uses newspaper advertising, social media, fact sheets, a template collection calendar design, a 1300 recycling 'hot line', a resource for non-English speaking members of the community and workshops and site visits for council staff and elected members delivered by KESAB *environmental solutions*.

80% of South Australia's councils are using elements of the Recycle Right® education program. In 2014-15 Zero Waste SA will continue to work with councils to encourage the further take up of the Recycle Right® suite of educational resources in addition to providing advice on best practice behavioural change strategies.

2014-15 Budget: \$410,000

Local Government Association of South Australia

The successful partnership between the Local Government Association and Zero Waste SA will continue for the period of the business plan to support the implementation of the Waste Strategy by:

- encouraging local council implementation of food collection with kerbside organics
- supporting the continued process of waste management reform by regional councils
- encouraging better contracting and monitoring of household collection services
- coordinating and advocating for national solutions to problematic waste such as packaging and hazardous waste
- supporting the implementation of the Environment Protection (Waste to Resources) Policy 2010
- facilitating local government discussion of key issues of relevance to Zero Waste SA.

2014-15 Budget: \$59,000

Commercial and industrial (C&I) waste

The Waste Strategy identifies the following priority actions for ‘maximising the useful life of materials through reuse and recycling’ in C&I waste:

- improving source separation, collection systems and sorting infrastructure
- improving waste management and recycling service delivery by the private sector
- reducing barriers to the use of recycled materials in projects or products
- identifying solutions to achieve diversion of C&I waste in regional areas
- supporting development of guidance for management of farm generated waste streams
- supporting implementation of the Environment Protection (Waste to Resources) Policy 2010
- identifying chemical hazard reduction and related opportunities in government and business, and identifying business leaders who can assist with education and change
- identifying recycling systems, resources and tools for workplaces to assist with ongoing awareness
- working with economic development agencies to look at growing resource recovery sectors (for example, the electronic waste sector)
- monitoring energy recovery enterprises to ensure that viable options for higher-order beneficial uses are not circumvented, consistent with the waste hierarchy.

Infrastructure grants

Metropolitan infrastructure program

The Metropolitan Infrastructure program aims to increase the ability of local reprocessors to produce high value end-use products from recyclables by investing in infrastructure that enables greater reuse of waste materials and reduces waste sent to landfill.

Zero Waste SA has initiated seven rounds of grant funding for metropolitan recycling infrastructure projects since 2005.

Infrastructure projects funded under this program support:

- improving the effectiveness of sorting facilities and recovery of mixed wastes
- improving the recovery of materials from electronic waste, whitegoods, fluorescent lighting or other lighting that contains mercury and other problematic waste
- the reuse of products including increased resource recovery from kerbside hard waste.

A seventh round of funding was awarded in November 2013 for six projects totalling \$1.2 million. In 2014-15, funds will be spent on these projects as they gain approvals and achieve milestones.

Regional implementation program

20% of South Australia’s waste is generated in rural areas, where population densities are low, waste types are diverse and delivery of waste and recycling services can be significantly more difficult than in metropolitan areas.

Recognising these difficulties, the Waste Strategy does not set specific recycling targets for regional South Australia. Diversion targets for non-metropolitan areas are to ‘maximise diversion to the extent practically achievable’ to provide flexibility for rural councils.

As regional strategies are completed, Zero Waste SA’s emphasis has supported implementation, granting up to 50% of costs to provide funding and assistance for:

- infrastructure investment for local government and industry
- the development and update of regional waste management plans and strategies
- identifying and implementing innovative local solutions.

The program has been reviewed and undergone continuous improvement, and is strongly supported by regional councils.

Since its inception in 2004–05, the program has committed a total of \$8.34 million to 112 regional infrastructure improvements.

In 2013–14, 14 regional infrastructure projects were successful in receiving a total of \$1.31 million in funding under this program, mostly directed to new or improved transfer stations and recycling facilities in rural areas.

Funding in 2014-15 will be allocated to projects awarded in 2013-14 as projects gain approvals and achieve milestones.

Waste management in the Unincorporated and Outback Areas of South Australia also requires significant improvement in waste disposal and recycling practices.

In 2012-13, Zero Waste SA worked with the Environment Protection Authority, Outback Communities Authority, Department of Environment, Water and Natural Resources, Department of Health, Department of Planning, Transport and Infrastructure and Keep South Australia Beautiful environmental solutions to investigate waste management issues in outback areas of South Australia and consider strategies to address these issues.

Many landfill sites in remote areas are managed by various community groups and/or progress associations that require guidance and support to effectively manage these facilities. The Environment Protection Authority is seeking to apply a consistent approach to licensing and management of waste or recycling depots across all sites in South Australia to ensure that waste management practices meet legislative and environmental requirements.

Zero Waste SA will work with key government stakeholders to determine how to best support improved waste management practices, infrastructure and services to reduce the environmental, social and financial burden associated with substandard waste management in Outback Areas.

2014-15 Metropolitan and regional infrastructure budget: \$1,942,000

Commercial food waste incentives

Adelaide has high performing recycling collection systems for households based on waste separation. Zero Waste SA has been working to establish a similarly effective collection system for the commercial and industrial sector.

Zero Waste SA previously ran the Recycling at Work program which encouraged and supported effective recycling collection systems for small to medium businesses across metropolitan Adelaide by providing financial incentives to waste collection companies to introduce new recycling systems.

Through this program, Zero Waste SA provided 11 waste collection companies with performance-based funding for the implementation of new paper/cardboard, plastics, organics, and mixed recycling services until 30 April 2012, and was supported by \$576,800 in Australian Packaging Covenant funding.

The Recycling at Work Program was reviewed in 2012 to identify what was working well, what could be improved and how the program could be adjusted to increase recycling rates from small to medium enterprises in metropolitan Adelaide.

The review identified that food waste collection from commercial operations required continued support. This is because commercial food waste collections have only been offered in the Adelaide metropolitan market for about four years and still require support to increase collection efficiencies and business awareness of the benefits of food waste collections.

A new Commercial Food Waste Incentives program was introduced in 2013-14 with a focus on food waste. Zero Waste SA will continue to invest in this area in 2014-15 to gain knowledge and achieve significant diversion of materials for reprocessing into high quality compost, mulch and soil conditioner products, and to identify recycling systems, resources and tools for workplaces to assist with ongoing awareness.

2014-15 Budget: \$284,000

Industry Program: resource assessment and evaluation

Resource Assessment and Evaluation is part of the Industry Program and addresses both avoidance and reduction of waste. It offers an integrated, systematic and proven approach that involves analysing a business' environmental performance and developing strategies to improve their environmental performance while increasing productivity. Through the uptake of sustainable business practices, improvements in international competitiveness can also be achieved.

Zero Waste SA is part of the Business Sustainability Alliance (BSA) in partnership with the Department for Manufacturing, Innovation, Trade, Resources and Energy, SA Water and the Environment Protection Authority. The BSA provides key competencies in the areas of waste, water, energy, lean manufacturing, construction, compliance, climate change and sustainability.

The program builds capacity within an organisation to deal with a range of rapidly emerging environmental, financial and social challenges to gain a competitive advantage. Key elements of the Industry Program are waste, energy and water audits and developing sustainability action plans and reporting systems.

Consistent with priority actions in the Waste Strategy, Zero Waste SA is extending its work under this Industry Program. Key work to be undertaken includes:

- attracting key businesses to undertake resource and evaluation program initiatives
- maximising the number of clients that implement resource efficiency by providing a sound business case that encourages implementation
- identifying industry associations and business leaders who can assist with enabling change across sectors and through supply chains.

Zero Waste SA's Industry Program delivery model can be replicated within other government departments, ranging from Health to Education. For example, in 2013-14, Zero Waste SA used its expertise to assist SA Health with procurement of waste and recycling services at over 300 facilities across South Australia. This intervention is forecast to generate \$8 to \$10 million in direct savings over five years.

Zero Waste SA is in a position to provide assistance to other State Government departments to achieve resource efficiencies and cost savings. The size and importance of the state and local government sectors within the South Australian economy means that interventions across government offer considerable potential for cost savings. Implementing resource efficiency programs across the whole of government not only has the potential to generate significant savings, but will also be an important catalytic driver of wider economic benefits.

This initiative contributes to the Industry Program's target of reaching up to approximately 150 sites and 60 companies per year.

2014-15 Budget: \$630,000

Waste Management Association of Australia

The Waste Management Association of Australia (WMAA) SA Branch represents and advocates its members' issues. The Waste Strategy recognises that Zero Waste SA's partnership with the WMAA provides valuable input into decision-making processes.

This continued partnership will help WMAA link the industry with Zero Waste SA and support WMAA to:

- hold events to improve industry knowledge and expertise, and provide networking opportunities
- administer working groups and distribute Zero Waste SA information to members.

The Waste Management Association of Australia and the Australian Water Association have established a joint venture, Enviro Connections, which is organising the 2014 Enviro Conference and Exhibition to be hosted by the South Australian Government on 17-19 September 2014.

The Enviro Conference is Australia's peak environmental and sustainability gathering convened every two years. It addresses a broad range of environmental topics in the waste, water, energy and climate change area and provides keynote speeches, presentations, workshops and site visits.

In 2011, South Australia won the rights to host the 2012 and 2014 Enviro Conferences which reinforced the State's reputation for innovation and leadership in waste management, water conservation and renewable energy. The Enviro 2012 conference and exhibition was held in Adelaide in July 2012.

Three agencies – Zero Waste SA, the Department of Manufacturing, Innovation, Trade, Energy and Resources and SA Water – have contributed funding to the conferences. Zero Waste SA is the lead sponsoring agency. Its funding of \$40,000 for the 2014 event is delivered through its partnership agreement with the Waste Management Association of Australia. Confirmed conference partners for the 2014 event are the Australian Solar Council and Clean Air Society ANZ.

The conference website is: www.enviroconvention.com.au.

2014-15 Budget: \$49,000

Construction and demolition (C&D) waste

The Waste Strategy identifies the following priority actions for 'maximising the useful life of materials through reuse and recycling' in C&D waste:

- developing markets and removing barriers to the responsible use of secondary materials such as concrete, aggregates, fill materials
- improving the quality of recycled materials ensuring 'fit for purpose'
- promoting source separation wherever feasible
- supporting implementation of the Environment Protection (Waste to Resources) Policy 2010
- embedding waste reduction and management practices in vocational training courses
- encouraging salvaging and reuse of building materials.



Significant change in this sector during the past six 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.

Engaging with the building and construction industry is essential to improve waste management and resource recovery practices in the C&D sector.

To improve waste management on construction sites, Zero Waste SA has previously funded KESAB *environmental solutions* to develop information for the building and construction industry that clearly outlines clean site management to support source separation and diversion of site clearing materials to appropriate recycling facilities.

KESAB's 'Clean Site Toolbox' provides education on C&D resource recovery, recycling, stormwater pollution reduction and litter management. The Master Builders Association's Environmental Pack also assists its members to introduce practices on sites to ensure that their projects meet environmental standards. Zero Waste SA will continue to promote these educational resources to encourage environmental best practice within the South Australian building and construction industry.

2014-15 Budget: these activities will be funded through the budget allocated in the program Community litter, education, resources and campaigns.

Problematic and hazardous waste

South Australia's Waste Strategy 2011–2015 identifies the following priorities for action on the management of hazardous waste:

- encourage the recovery and treatment of oils, solvents and other valuable materials for reuse
- reduce hazards through hazardous waste collection, recycling and appropriate disposal
- encourage remediation of low level and high level contaminated soils for reuse.

Household hazardous waste and farm chemical collections

In line with the Waste Strategy, in 2014-15 Zero Waste SA will:

- 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 better inform stakeholders and the community on household and farm chemical collection facilities
- encourage the recovery and treatment of oils, solvents and other valuable materials for reuse
- reduce hazards through hazardous waste collection, recycling and appropriate disposal
- encourage remediation of low level and high level contaminated soils for reuse.

Household chemicals can be dangerous without safe storage and disposal. Zero Waste SA offers South Australians a responsible safe collection and disposal service for unwanted chemicals through the mobile Household Hazardous Waste and Farm Chemical Collection program and the Hazardous Waste Depot at Dry Creek. Collections are free and open to all householders.

The Hazardous Waste Depot at Dry Creek has been funded and managed by Zero Waste SA since July 2008. The depot is open between 9am and noon on the first Tuesday of every month. The facility has been invaluable to the South Australian community 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 depot, Zero Waste SA operates a more accessible, mobile system in collaboration with councils throughout metropolitan and regional areas of the State. Zero Waste SA manages the collection and disposal of the unwanted chemicals by an Environment Protection Authority authorised contractor.

Householders are advised of these collections through advertising, information flyers and media coverage. Collection schedules and other information are published on the Zero Waste SA website at www.zerowaste.sa.gov.au.

Zero Waste SA will also continue to raise awareness with the public of the alternative disposal options for items such as used motor oil and light globes.

The program is vital for continuing education and safe disposal of toxic substances.

2014-15 Budget: \$568,000

Support implementation of the Environment Protection (Waste to Resources) Policy 2010

The Environment Protection (Waste to Resources) Policy 2010 (Waste EPP) came into operation on 1 September 2010 and progressively bans certain wastes from going to landfill. The Waste EPP provides the regulatory underpinning for the Waste Strategy.

The Waste EPP will progressively ban certain wastes to landfill including computers, televisions and other electronic waste, oil, lead acid batteries and compact fluorescent lights. Zero Waste SA will take a supporting role to enable the Waste EPP. Strategies will be developed for banned materials including high volume/low toxicity materials such as compact fluorescent lighting, mercury lights, tyres, lead acid batteries, gas bottles, paints, waste oil and all plastics.

Zero Waste SA has already made progress in some of these areas. Zero Waste SA has helped householders safely dispose of the mercury contained in the new energy efficient lights through the BackLight Household Light Globe Recycling Program. Householders can drop off a range of used fluoro globes for recycling at metropolitan and regional Mitre 10, True Value and Banner stores across the State, free of charge. The globes are then recycled by Chemsal Resource Recovery.

Zero Waste SA will also work closely with the Environment Protection Authority, local government, recycling industry (including container deposit operators), lighting industry, plastics industries, tyre industry, major retailers and other key stakeholders.

2014-15 Budget:

BackLight program	\$60,000
Landfill ban strategies	\$91,000
Total	\$151,000

State, national and international policies and collaboration

Working with other jurisdictions internationally and nationally assists Zero Waste SA to work internally to develop, coordinate and contribute to the implementation of South Australia's waste management policy objectives.

Nationally, the Australian Government is responsible for ensuring that Australia's international obligations are met, through national or State actions. Zero Waste SA contributes to national discussions and initiatives on a range of issues such as plastic bags, tyres, end of life vehicles, electronic waste, waste oil, product stewardship and the Australian Packaging Covenant.

The Waste Strategy identifies that effective product stewardship schemes should be in place by 2015. Zero Waste SA will continue to influence policy direction in the future to support product stewardship initiatives for a range of products including electronic waste, televisions, tyres, hand held batteries and waste paint.

Under the Environment Protection (Waste to Resources) Policy 2010, computers and televisions were banned from metropolitan landfills in South Australia from 1 September 2012. Landfill operators must not receive such waste for disposal. The Product Stewardship Regulations (Televisions and Computers) 2011 came into effect on 8 November 2011. The regulations underpin the National Television and Computer Recycling Scheme, which provide householders and small businesses with free access to drop-off and recycling services. On ground activity under this scheme has started in South Australia and services expanded across metropolitan, regional and remote Australia by the end of 2013.

A key focus for Zero Waste SA during 2014-15 will be to review the legislative and practical support needed in South Australia to continue to support electronic waste collection. This will provide information on South Australia's reprocessing capacity for dealing with electronic waste and any issues and challenges associated with implementation of the National Television and Computer Recycling Scheme so that Zero Waste SA continues to be an effective advocate at the national level.

Internationally, Zero Waste SA is seen as a leader in waste management and resource recovery. The agency contributes its expertise through the International Partnership for Expanding Waste Management Services of Local Authorities (IPLA). This is an initiative of the United Nations Centre for Regional Development (UNCRD) and United Nations Department of Economic and Social Affairs.

UNCRD was founded in 1971 to promote sustainable regional development in developing countries. The IPLA, launched by the UNCRD during CSD-19 in New York in May 2011, aims to address various challenges and capacity needs of local authorities in achieving sustainable waste management. Following an invitation by the UNCRD, the Chief Executive of Zero Waste SA became a board member of the Advisory Board to the IPLA in November 2012. Through the IPLA, Zero Waste SA can share and gain experiences and knowledge internationally.

Through this forum, Zero Waste SA will also explore ways to help South Australian businesses to find new overseas markets for their waste management knowledge and skills. For example, in 2012, Zero Waste SA assisted a South Australian consultant to be appointed as the international resource for the development of a Road Map for Zero Waste Ahmedabad in Gujarat India. It is expected that as South Australia's credentials grow globally, there will be further opportunities for South Australian businesses to export their knowledge, experience and to develop pragmatic solutions that are fit for purpose in other jurisdictions.

2014-15 Budget: \$248,000

Disposal and illegal dumping



Dob in a litterer

The South Australian Government has committed to establishing a dob in-a litterer program through a mobile digital application. Zero Waste SA has been tasked with leading the development of this initiative in collaboration with key stakeholders.

The mobile application will allow members of the public to report litterers by submitting photos online or from a mobile device. The application will allow for 'on the go' reporting in real time and an ability to photograph an incident and submit it, tagged with GPS coordinates as evidence of the littering.

A complementary dob-in-a-litterer website will also allow for:

- online reporting
- download of forms for submitting posted or faxed reports
- explanations of how the program works
- information to educate the community about the environmental benefits and outcomes of reducing littering
- information about the dangers of littering such as a lit cigarette thrown from a car window.

During 2014-15, Zero Waste SA will consult on the educational options for the new dob-in-a-litterer initiative with stakeholders including local government, the Environment Protection Authority, SA Police, other relevant government agencies and Keep South Australia Beautiful environmental solutions.

South Australia's initiative will build on and improve similar approaches to curbing litter that have been implemented in other jurisdictions.

2014-15 Budget: \$100,000

Litter data and research and branded litter monitoring

KESAB *environmental solutions* has been monitoring litter incidence at 151 sites across the State on a quarterly basis since 1998, providing the best continuous data set for measuring litter incidence in Australia.

This program aims to help Zero Waste SA to maintain effective litter data on trends, item types and locations, and develop community education and awareness campaigns. Data is stored and analysed in ZEUS.

Under the Zero Waste SA and KESAB service level agreement, Zero Waste SA requires KESAB to:

- conduct quarterly counts at 151 sites throughout South Australia in February, May, August, November
- maintain a comprehensive database and trend line of litter streams 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
- achieve measurable reduction in targeted litter
- regularly report to, engage and inform stakeholders
- continue ongoing public awareness and media management
- independently audit count procedure and results annually.

2014-15 Budget: \$70,000

Community litter, education, resources and campaigns

Extensive social research into community behaviour, litter and recycling 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. This enables resources and strategy options to be developed in collaboration with partners and stakeholders. This program aims to develop and regularly update a suite of contemporary litter awareness and information materials (brochures, posters, signs, some in languages other than English), and make them available to councils, schools, community groups and stakeholders to increase awareness of litter disposal.

Under the Zero Waste SA and Keep South Australia Beautiful environmental solutions (KESAB) service level agreement, Zero Waste SA requires KESAB to:

- develop and implement litter awareness strategies in collaboration with sectors identified through the Litter Data and Branded Litter Monitoring programs and through stakeholder feedback
- monitor new packaging types and report on their impacts
- develop and disseminate information and resources to stakeholders for implementation.

2014-15 Budget: \$100,000

Illegal dumping

The Waste Strategy identifies the following actions for illegal dumping:

- decreasing incidences and tonnages of illegally disposed waste
- supporting implementation of the Environment Protection (Waste to Resources) Policy 2010
- supporting, encouraging and, where possible, demanding landfill gas recovery for energy production where this is consistent with Environment Protection Authority requirements
- implementing litter reduction and public place recycling.

Zero Waste SA will work closely with the Environment Protection Authority and other stakeholders to assist efforts to reduce illegal dumping. Zero Waste SA offers its data capture system 'ZEUS' for illegal dumping incidences to councils and to the Environment Protection Authority. This enables the tracking of illegal dumping activity and helps to identify illegal dumping 'hot spots'.

2014-15 Budget: these activities will be funded through the budget allocated in *Community litter, education, resources and campaigns*.

Research and development

The Waste Strategy recognises that collaboration, research, data collection and monitoring will help refine programs to in turn achieve better waste avoidance and resource efficiency.



Tertiary education sector (UniSA) partnership

The Zero Waste Centre for Sustainable Design and Behaviour, established in 2008–09 at the University of South Australia, is a 'centre of excellence' partnership between the University of South Australia and Zero Waste SA. The Centre brings together design and behavioural change across diverse academic disciplines such as architecture and childhood development and examines issues of waste management and reduction, recycling and resource efficiency.

Under the partnership, Zero Waste SA has provided \$200,000 per financial year, matched by the University of South Australia. This was used to leverage considerable funding from other sources such as the Australian Research Council. Projects under the current agreement have now been completed by the centre.

In 2014-15, Zero Waste SA will evaluate the outcomes of the four projects undertaken by the Centre that were successful in winning Australia Research Council Grants. These were:

Zero-ing in on Food Waste: Measuring, understanding and reducing food waste in South Australia from production to consumption in households and restaurants. The project focused on understanding social and behavioural aspects of food waste.

Work, Life and Sustainable Living: How work, household and community life interact to affect environmental behaviours and outcomes. The project examined how the circumstances and interaction of work, home and community affect capacities to reduce negative environmental impacts, particularly in workplace and household transport, waste, energy and water use practices.

Paving the Way: An experimental approach to the mathematical modelling and design of permeable pavements. The project examined the intelligent use of permeable pavements using recycled components, aiming to enable restoration of degraded land corridors.

Reconsidering Sustainable Building and Design: A cultural change approach. The project aimed to help reduce construction and demolition waste by addressing the role of the building procurement team in reducing resource use and eliminating waste.

Zero Waste SA's evaluation will coincide with the University of South Australia's current review of all research centres and institutes and help to determine the future delivery of research in waste, consumption and behaviour change.

2014-15 Budget: \$112,000



2 Key objective: Avoid and reduce waste

Key objective: Avoid and reduce waste

The Waste Strategy identifies that achievability of this objective requires action in these key priority areas:

avoid and reduce wasteful use of resources in production processes and products (for example, leaner production, design for environment and extended producer responsibility)

learn and foster attitudes and lifestyle choices that encourage us to live within nature's limits

embed this new learning within our education systems

support consumers to make informed purchasing decisions.



Measurement, analysis, evaluation and reporting to support targets and assess the adequacy of the Waste Strategy

The Waste Strategy identifies the following priority actions in building our knowledge and data on waste and recycling:

monitor infrastructure and identify gaps (to be undertaken as part of the waste strategy review)

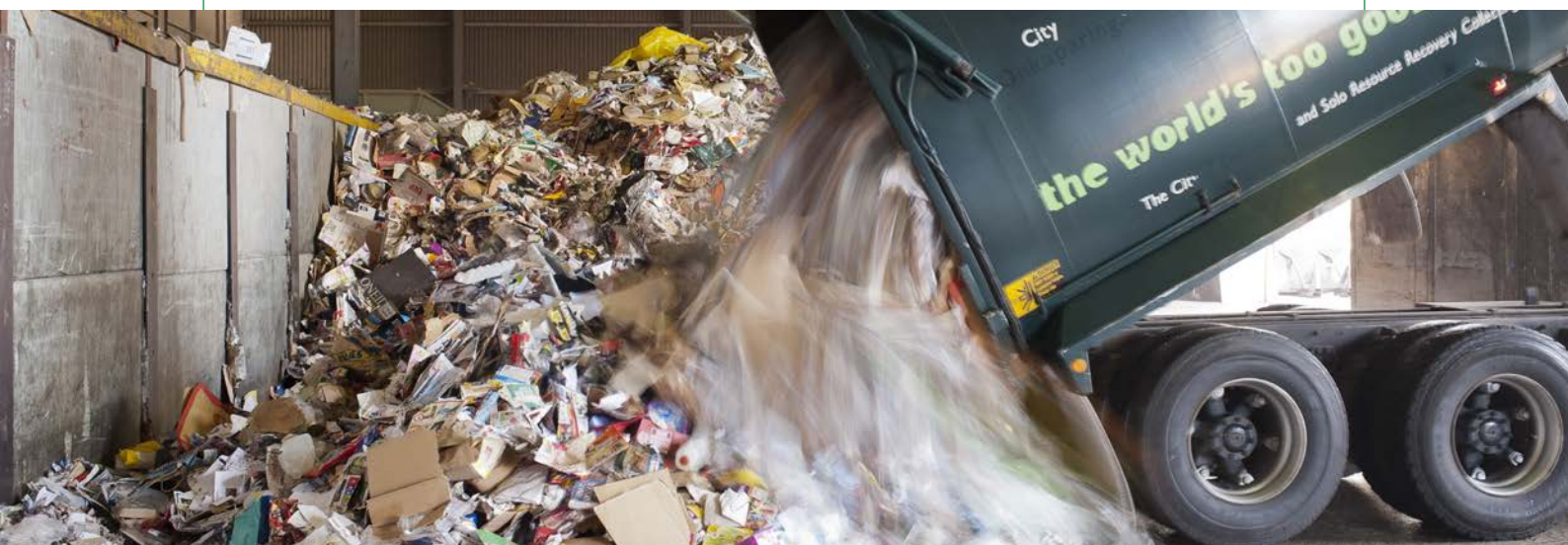
record learning and feedback to inform policy and design of projects

monitor industry investment, cost savings, jobs growth, change in perceptions and importance of environmental issues

measure outcomes as they relate to greenhouse gas emissions, water and ecological footprint

develop models that give feedback on individual and system performance.

2014-15 Budget: these activities will be funded through the budgets allocated in programs Waste audits and recycling activities study and Zero Waste SA Environmental User System.



Municipal solid waste (MSW)

The Waste Strategy identifies the following priority actions to 'avoid and reduce waste' in MSW:

- use innovative approaches to inform households, increase awareness of wasteful consumption and effective recycling, and maintain awareness above 80%
- promote green purchasing and waste avoidance with householders and councils
- explore links with emerging sustainability agendas (for example, sustainability in food policy)
- develop systems that assist purchasing decisions such as extended producer responsibility, star-rating systems and the choice to leave packaging in-store.

Sustainable Communities (city and country)

The Waste Strategy recognises the importance of supporting local activities, including schools, to tap into the values of the community and encourage sustainable behaviour change. Under the Zero Waste SA and Keep South Australia Beautiful environmental solutions (KESAB) agreement, Zero Waste SA supports KESAB to undertake ongoing environmental education and action embracing rural communities, local government, schools and groups through a revamped Tidy Towns program, Sustainable Communities.

Zero Waste SA supports KESAB to encourage rural communities to adopt and implement sustainable environmental practices, encouraging a whole of community approach through environmental education and action. This includes recognition of waste and recycling efforts through annual awards.

Zero Waste SA requires KESAB to:

- deliver the Sustainable Communities program to a high standard with engagement by communities in each region evidenced by applications from a range of community-based groups including councils, schools, natural resources management boards, and service and community groups
- involve Adelaide communities, with at least eight in 2013 and 10 in 2014
- recognise and reward sustainable environmental outcomes
- ensure that at least 30% of councils in each region promote the program via websites, newsletters or other high-profile media.

2014-15 Budget: \$25,000

Wipe Out Waste schools program

The Wipe Out Waste (WOW) program provides training and resources for teachers and helps drive positive change in schools and preschools. WOW was developed on behalf of Zero Waste SA by KESAB environmental solutions (KESAB), the Department of Environment, Water and Natural Resources, and the Department of Education and Child Development. WOW is an integrated comprehensive waste education program supported by curriculum resources and teacher training. It is the first waste education program in Australia to span preschool through to primary and secondary schools.

WOW resources enable teachers and school staff to gain an understanding of waste, litter, recycling, resource recovery and related environmental issues as part of the curriculum. WOW is a fundamental adjunct to the Australian Sustainable Schools Initiative. WOW was reviewed in 2012-13 to better align it with Zero Waste SA's Recycle Right® community education program.

In 2014–15, the program will be expanded to enable increased engagement with regional and metropolitan schools. This will enable the employment of an additional position within KESAB, bringing the number of positions supporting the program to two.

Under this program, KESAB has committed to:

- using measurable evidence to report against deliverables in the strategic plan
- developing age-appropriate resources as needed
- identifying community, council and industry linkages and partnerships for each participating school
- encouraging and supporting the reduction of waste in sites
- regular reporting to stakeholders.

2014-15 Budget: \$305,000

Commercial and industrial (C&I) waste

The Waste Strategy identifies the following priority actions to 'avoid and reduce waste' in C&I waste:

- promote Environment Protection Authority sustainability licences that incorporate sustainability measures
- encourage industry training and awareness
- promote sustainable procurement and undertake specific analysis to demonstrate the full costs and other benefits of sustainable procurement
- promote industry knowledge and awareness through web based publications and information dissemination
- implement sustainability initiatives within the State Government, including assets such as buildings and infrastructure
- promote innovation in business sustainability
- fund the expansion of resource efficiency initiatives to include accreditation schemes
- involve greater numbers of businesses, especially small and medium sized enterprises and retail sectors, in work-based recycling and resource efficiency programs
- support the development and implementation of climate change sector agreements
- identify business leaders who can assist with industry education and enable change across sectors and through supply chains.

Consumption and waste avoidance – Share N Save

Zero Waste SA has developed a program which encourages and assists the community to share and reuse goods and services.

This 'sharing economy' (also known as 'collaborative consumption' or 'peer to peer' economy) is an emerging global movement where people are using web and mobile technology to barter, lend, swap and otherwise share to create social benefit within a community. This sharing approach helps people save time, money and resources by meeting their needs in collaboration with others.

On 20 November 2013, Zero Waste SA launched a new online sharing initiative called 'Share N Save' which assists South Australians to conserve resources, save money and connect with their local communities. The Share N Save website is available at:

www.shareNsave.com.au

www.twitter.com/shareNsave

www.facebook.com/shareNsave

The website uses web and mobile technology to expand traditional forms of transaction exchange to promote sharing activity and the 'sharing economy' (also known as 'collaborative consumption') through bartering, lending, swapping and sharing.

The website is the first of its kind for any government within Australia and will create social benefits within a community by enabling access to activities, goods and services without ownership or cost. In 2014-15 opportunities to licence the online platform to other jurisdictions locally and internationally will be pursued.

The program aims to help:

- reduce household financial pressure (cost of living, debt) through sharing daily activities
- increase the use of existing, unused and under-used resources, assets and materials through sharing, which contributes to avoiding consumption and associated waste
- strengthen community and building social trust through more sharing, minimising household budget pressures, and freeing up time.

2014-15 Budget: \$98,000

Industry Program: education, innovation and systems

The Innovation and Systems initiative is delivered under the Industry Program and addresses innovative approaches to business sustainability. It will explore opportunities for advanced technologies, methodologies and systems and concepts of a green/circular economy.

Consistent with priority actions in the Waste Strategy, Zero Waste SA is extending its work under the Industry Program. Key elements of the education, innovation and systems initiative are:

- Accreditation and Procurement Systems:
 - » increasing the number of businesses that take up accreditation systems/schemes
 - » advising on sustainable procurement and building sustainable supply chains (including government)
- Circular economy and industrial symbiosis
 - » identifying the market failures associated with the transition to a circular economy
 - » facilitating an integrated and structured approach to industry symbiosis whereby one organisation's waste is a useful and valuable input to another organisation
- Sustainable business education and engagement
 - » advising on and informing a range of issues such as sustainable procurement and supply chains, sustainable manufacturing and waste management
 - » encouraging and promoting industry awareness and business sustainability through training, web based publications and information dissemination
 - » providing information, direction and tools to enable all types and sizes of organisations and industry associations to make more informed investment decisions on business sustainability
 - » networking and training opportunities
 - » sustainability mentoring
 - » waste and recycling contract advice
 - » case study development: achievements of individual companies are documented in case studies and published on www.zerowaste.sa.gov.au.

This initiative contributes to the Industry Program's target of reaching up to approximately 150 sites and 60 companies per year.

2014-15 Budget: \$420,000



Construction and demolition (C&D) waste

The Waste Strategy identifies the following priority actions for 'avoid and reduce waste' in C&D waste:

- taking account of waste generation and waste reduction in advocating for planning decisions
- ensure planning decisions take into account of waste generation and waste reduction
- promoting sustainable procurement, especially in the government sector
- applying financial instruments to drive change
- engaging industry training and association bodies to include avoidance, reduction and recycling within a sustainability context in apprentice training.

2014-15 Budget: these activities will be funded through the budgets allocated in Waste audits and recycling activities study, Zero Waste SA Environmental User System and Industry Program – Innovation and Systems program.



Problematic hazardous waste

In line with the Waste Strategy, in 2014-15 Zero Waste SA will:

- engage with producers, importers and manufacturers to educate, encourage and support product stewardship initiatives for electronic waste, tyres and batteries
- reduce hazards through hazardous waste collections, recycling and appropriate disposal
- encourage the use of less toxic materials
- provide convenient drop off facilities for unwanted household and farm hazardous materials.

2014-15 Budget: these activities will be funded through the budgets allocated in programs Household hazardous waste and farm chemical collections, Support implementation of the Environment Protection (Waste to Resources) Policy 2010 and National and State policies.

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Disposal and illegal dumping

The Waste Strategy identifies the following actions in disposal and illegal dumping:

- identifying and maximising opportunities to increase awareness, link environmental values with reduced litter, illegal dumping and associated impacts
- providing education, enforcement, action and disincentives for illegal dumping
- banning from landfill those materials that could be disposed of through strongly performing markets – having regard to metropolitan and non-metropolitan context

2014-15 Budget: these activities will be funded through the budget allocated in program Community litter, education, resources and campaigns.



Research and development

The Waste Strategy identifies the following priority actions in research and development:

- understanding how sustainable behaviour change is achieved and apply findings to waste avoidance, and reduction of littering, illegal dumping and consumption
- finding the information we need to make better decisions about what we buy and use
- helping discover the policy choices society will need to ensure its future wellbeing
- funding and developing graduate and post-graduate capacity
- measuring consumption and ecological footprint; understand links between wasteful consumption, disposable income, behaviours and ecological footprint

2014-15 Budget: these activities will be funded through the budgets allocated in programs Commercial food incentives, Tertiary education sector (UniSA) partnership, Industry Program – Innovation and Systems program, and Consumption and waste avoidance – ‘sharing’ initiative.



Corporate Support functions

Communications, education, marketing and website

Zero Waste SA's communications, education and marketing activities target industry, government and community and underpin the implementation of the Waste Strategy, particularly in the area of increasing engagement across all sectors. Communications aim to raise awareness of Zero Waste SA's purpose, achievements and programs, and enhance its stakeholder relationships by encouraging two-way communications with the community, local councils and industry. The main channels for communications include the quarterly rewords stakeholder newsletter, fact sheets and case studies, sponsorships and social media. The www.zerowaste.sa.gov.au website is continually developed to ensure content is relevant, accurate and up-to-date as well as being easy to navigate.

2014-15 Budget: \$294,000

Zero Waste SA Board support

Zero Waste SA provides policy and administrative support to the Board of Zero Waste SA and committees approved by the Board (for example, its Governance Committee). The Board meets about 10 times a year and members (excluding public servants) receive appropriate salaries for attending meetings. This budget item reflects running costs of Board meetings, training of members and Zero Waste SA staff salaries and on costs allocated to support the Board function.

2014-15 Budget: \$240,000

Corporate services

This budget item provides ongoing administration support to the organisation, including work health and safety, rental office lease payments, payroll, insurance, fleet management, telecommunications and purchasing, administrative support to the Board and management of the Waste to Resources Fund.

2014-15 Corporate services budget: \$858,000



Budget

Funding provisions

Funding for Zero Waste SA's programs 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 collects the levy of which 50% is paid into the Waste to Resources Fund to be used by Zero Waste SA for its programs. Zero Waste SA's approved expenditure authority for 2014-15 is \$7.45 million.

Revenue and expenditure

Revenue (estimated)	2014 15 (\$)
Cash held 1 July, opening balance	53,682,000
50% of waste levy payments from Environment Protection Authority	20,868,000
Interest on deposits	1,200,000
Income from external sources	0
Total estimated revenue – Waste to Resources Fund	75,750,000
ZWSA expenditure authority	8,050,000

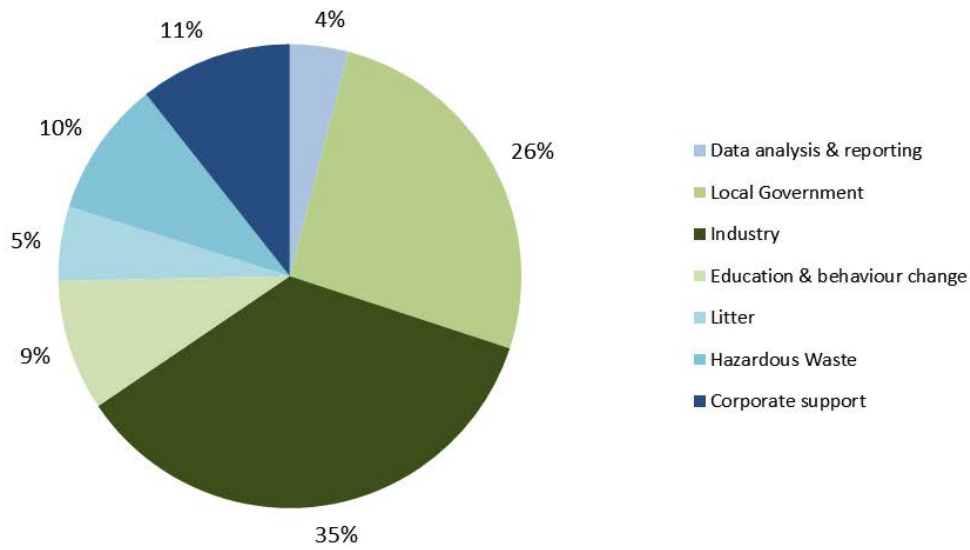
Expenditure

	2014 15 (\$) Budget
I. Key objective: Maximising the useful life of materials through reuse and recycling	
Measurement, analysis, evaluation and reporting to support targets and assess the adequacy of the Waste Strategy	
Waste audits and recycling activities study	78,000
Zero Waste SA Environmental User System	251,000
Waste Strategy policies	458,000
Sub-total	787,000
Municipal solid waste	
Kerbside waste incentives and associated strategies	300,000
Recycle Right® household education	410,000
Local Government Association of South Australia	59,000
Sub-total	769,000
Commercial and Industrial Waste	
Infrastructure grants	
<i>Metropolitan and regional infrastructure</i>	1,942,000
Sub-total	1,942,000
Commercial food incentives	284,000
Industry Program – Resource Assessment and Evaluation	630,000
Waste Management Association of Australia	49,000
Sub-total	963,000
Problematic and hazardous waste	
Household hazardous waste and farm chemical collections	568,000
Support implementation of the Environment Protection (Waste to Resources) Policy 2010	151,000
National and State policies	248,000
Sub-total	967,000
Disposal and illegal dumping	
Dob in a litterer	100,000
Litter data and research and branded litter monitoring	70,000
Community litter, education, resources and campaigns	100,000
Sub-total	270,000
Research and development	
Tertiary education sector (UniSA) partnership	112,000
Sub-total	112,000

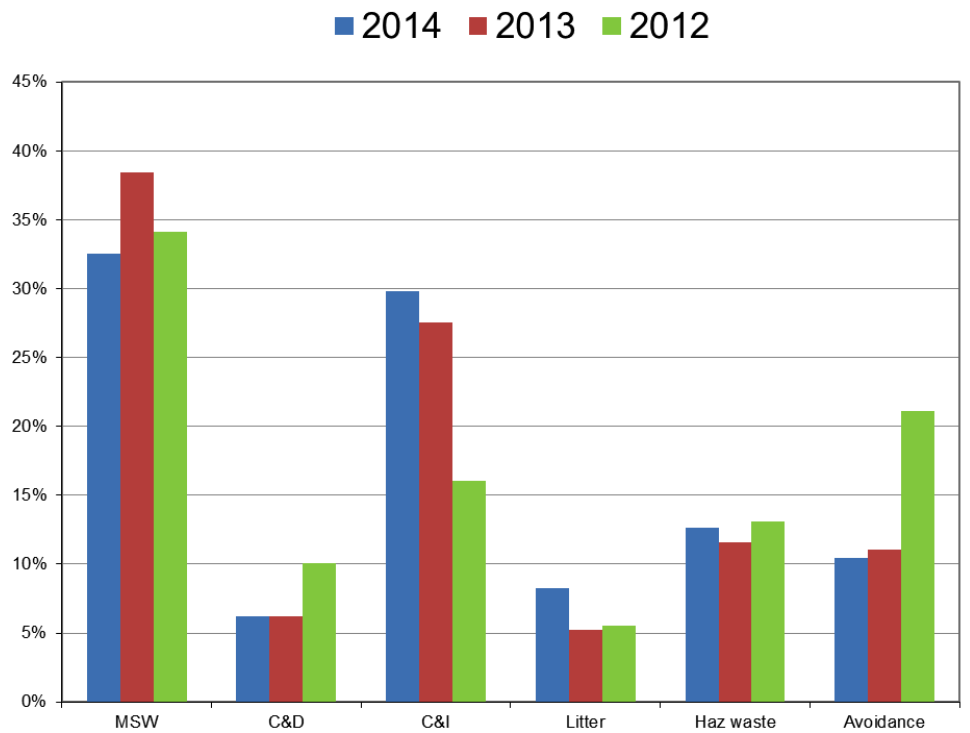
Expenditure

	2014 15 (\$) Budget
2. Key objective: Avoid and reduce waste	
Municipal Solid Waste	
Sustainable communities (City and Country)	25,000
Wipe Out Waste schools program	305,000
Sub-total	330,000
Commercial and industrial waste	
Industry Program – Innovation and Systems program	420,000
Consumption and waste avoidance – ‘sharing’ initiative	98,000
Sub-total	518,000
Corporate support functions	
Communications, education, marketing and website	294,000
Zero Waste SA Board support	240,000
Corporate services (accommodation, office running costs and salaries)	858,000
Sub-total	1,392,000
CURRENT TOTAL	8,050,000
Expenditure authority	8,050,000

Budget Distribution charts



Budget breakdown by key activities



Budget breakdown by priority area



Appendix I – About Zero Waste SA

Primary objectives and guiding principles

Section 5 of the *Zero Waste SA Act 2004* states that the primary objective of Zero Waste SA 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, Zero Waste SA is to be guided by:

- the waste management hierarchy (figure 1)
- 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.

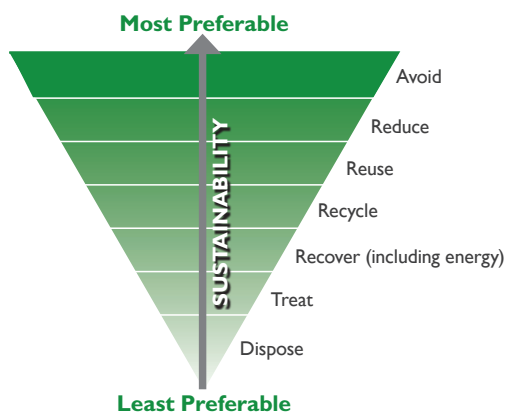


Figure 1. The waste management hierarchy

Functions of Zero Waste SA

Section 6 of the *Zero Waste SA Act 2004* states:

The functions of Zero Waste SA are—

- (a) to develop, co-ordinate and contribute to the implementation of government policy objectives in respect of—
 - » waste management for regions, industry sectors or material types; and
 - » public and industry awareness and education in relation to waste management; and
 - » programs for the prevention of litter and illegal dumping; and
 - » 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.

South Australia's Waste Strategy 2011-2015 goals and targets

South Australia's Strategic Plan 2011 (Department of the Premier and Cabinet) 35% reduction in landfill disposal from 2002-03 level by 2014		
Per capita target 5% reduction in waste generation per capita by 2015		
South Australia's Waste Strategy 2011-2015 (Zero Waste SA)		
Year	Metropolitan (% diversion)	Non-metropolitan
Municipal Solid Waste (MSW) waste landfill diversion targets		
2009 (baseline)*	55	Not applicable
2012	60	Maximise diversion to the extent practically achievable
2015	70	Maximise diversion to the extent practically achievable
Commercial and Industrial (C&I) waste landfill diversion targets		
2009 (baseline)**	60	Not applicable
2012	65	Maximise diversion to the extent practically achievable
2015	75	Maximise diversion to the extent practically achievable
Construction and Demolition (C&D) waste landfill diversion target		
2009 (baseline)***	80	Not applicable
2012	85	Maximise diversion to the extent practically achievable
2015	90	Maximise diversion to the extent practically achievable
* Estimated from Recycling Activity Report 2008-09: assumes 30% MSW waste disposed to landfill; also supported by Zero Waste SA-funded kerbside audit data of 3-bin system from 2008 and 2009 with collection frequency (all tenements) of weekly residual waste, and fortnightly co-mingled and fortnightly green organics: these audits typically find diversion in mid-50% range		
** Estimated from Recycling Activity Report 2008-09: assumes 43% C&I waste disposed to landfill		
*** Estimated from Recycling Activity Report 2008-09: assumes 27% C&D waste disposed to landfill		

In regional areas, greater distances, transport costs and low economies of scale make improvements more difficult. The Waste Strategy does not set specific recycling targets for regional South Australia to allow flexibility for rural councils.



Appendix 2 – Zero Waste SA support for the State Government’s focus areas

Support provided by Zero Waste SA for the State Government's seven focus areas through the delivery of programs and projects is depicted in the table below.

The South Australian Government's priority areas

Zero Waste SA programs and projects	Premium food and wine from our clean environment	Realising the benefits of the mining boom for all South Australians	Growing advanced manufacturing	Creating a vibrant city	Safe communities and healthy neighbourhoods	An affordable place to live	Every chance for every child
Key objective: Maximising the useful life of materials through reuse and recycling							
Waste Strategy policies				✓	✓	✓	
Municipal solid waste							
Kerbside waste incentives and associated strategies	✓			✓	✓	✓	
Recycle Right® household education				✓	✓		
Commercial and Industrial Waste							
Metropolitan infrastructure program	✓		✓	✓		✓	
Regional Implementation program	✓	✓	✓	✓		✓	
Schools and community grants				✓			✓
Commercial food incentives	✓			✓		✓	
Industry Program – Resource Assessment and Evaluation	✓		✓	✓		✓	
Problematic and hazardous waste							
Household hazardous waste and farm chemical collections				✓	✓	✓	
Support implementation of the Environment Protection (Waste to Resources) Policy 2010	✓			✓	✓	✓	
National and State policies				✓	✓	✓	
Disposal and illegal dumping							
Illegal dumping				✓	✓		
Litter data and research and branded litter monitoring				✓	✓		
Community litter, education, resources and campaigns				✓	✓		
Research and development							
Tertiary education sector (UniSA) partnership	✓		✓	✓	✓	✓	

The South Australian Government’s priority areas

Zero Waste SA programs and projects	Premium food and wine from our clean environment	Realising the benefits of the mining boom for all South Australians	Growing advanced manufacturing	Creating a vibrant city	Safe communities and healthy neighbourhoods	An affordable place to live	Every chance for every child
Key objective: Avoid and reduce waste							
Municipal Solid Waste							
Sustainable communities (City and Country)				✓	✓		
Wipe Out Waste schools program				✓			✓
Commercial and industrial waste							
Industry Program – Innovation and Systems program	✓		✓	✓		✓	
Consumption and waste avoidance – ‘sharing’ initiative				✓	✓	✓	



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