



Government of South Australia

Office of Green Industries SA

Zero Waste SA

Business Plan

2015-16

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Foreword

The 2015-16 Zero Waste SA Business Plan has been prepared pursuant to Section 14 of the *Zero Waste SA Act 2004*. This Business Plan acknowledges the period of transition that Zero Waste SA is embarking on throughout 2015-16 as the Government of South Australia realises its vision to establish the new authority, Green Industries SA.

From 1 July 2015, following a proclamation under the *Public Sector Act 2009*, the department that supports Zero Waste SA (the Office of Zero Waste SA) will be known as the Office of Green Industries SA.

In 2014-15, consultation on the establishment of Green Industries SA was undertaken. At the request of the Minister for Sustainability, Environment and Conservation, the Board of Zero Waste SA provided advice and recommendations to the Minister on the outcomes of the consultation process.

The Government's vision for Green Industries SA has been articulated as building on the achievements of Zero Waste SA, whilst setting in place foundation actions to encourage innovation and economic growth through development of the Green Economy.

2015-16 will see significant work in this area, as the functions of the new authority are further developed, and Green Industries SA legislation is prepared.

The 2015-16 Zero Waste SA Business Plan has two key objectives which meet the statutory obligations of the *Zero Waste SA Act 2004*:

- To work with businesses, governments and the environmental sector to keep South Australia at the forefront of green innovation in the waste, recycling and resource recovery sectors.
- To deliver on reduced waste to landfill and increase the State's capacity for recycling.

In 2015-16, the Business Plan's focus will be on four areas:

- building the remanufacturing sector capacity and capability to find new markets, and especially to capitalise on overseas markets
- helping businesses and government to make more efficient use of raw materials, energy and water, thereby reducing consumption, reducing waste, and reducing costs, through the Industry Program
- enabling green innovation and new technology in the waste, recycling and resource recovery sectors through research and grants to local government and industry
- reporting against targets in South Australia's Waste Strategy and South Australia's Strategic Plan as a collector and custodian of data.

More than ever before, collaboration, partnerships and engagement remain vital to address the economic challenges facing South Australia through job creation and green industry growth.

As Zero Waste SA transitions to Green Industries SA, there will be a concerted effort to support South Australia's recycling, remanufacturing and waste management businesses to participate in growing global and regional markets.

It is an exciting time as the Green Economy is a way to contribute towards South Australia's competitive advantage: the Green Economy is a response to the demand for clean and green produce, reduced emissions to air, water and soil from industry, more efficient use of resources, and conservation and recovery of scarce resources.

The waste management and resource recovery sector is a significant sector of the economy in South Australia. The waste sector has an annual turnover of approximately \$1bn, contributes \$500m to Gross State Product (directly and indirectly) and employs approximately 4,800 people. Nationally it is estimated that the waste sector is worth \$14.2bn per year.

Through investing more than \$80m from waste levy funds into the resource recovery sector during the past decade we have built capacity, improved markets and assisted the development of new products and skills. Funded projects that improve industry competitiveness, and for infrastructure investment, achieve benefit cost ratios of 6.7 and between 1.4 and 11.5 respectively.

This Business Plan builds upon these achievements in 2015-16, and, through working to establish Green Industries SA, will assist in the creation of green jobs and develop new green business opportunities.

South Australia is recognised for its leading-edge work in the area of waste management and recycling. Zero Waste SA has been a catalyst in shaping this reputation for over a decade, and will continue this focus in 2015-16 through the delivery of South Australia's Waste Strategy for 2015-2020 (in development).

The agency's small team of skilled staff provides the soft infrastructure on which to deliver an ambitious agenda for economic prosperity, a resource efficient economy and continuing achievements in reduced waste to landfill.

We are grateful for the support of our partners and advocates during the transition from Zero Waste SA to Green Industries SA. We also look forward to building new collaborations in business, industry and government which will strengthen South Australia's position as an exemplar leader in the Green Economy.

Kevin McGuiness

Presiding Member, Board of Zero Waste SA

Transitioning to Green Industries SA

From 1 July 2015 the Office of Zero Waste SA will be known as the Office of Green Industries SA as proclaimed under s.26(b) of the *Public Sector Act 2009*.

During 2015-16, legislation to establish Green Industries SA, including a definition of its functions, will be developed. During this transitional period the *Zero Waste SA Act 2004* remains operational, and the Board of Zero Waste SA has been tasked by the Minister for Sustainability, Environment and Conservation to provide advice on the establishment of Green Industries SA. Zero Waste SA will be supported during this time by the Office of Green Industries SA.

The 2014-15 State Budget included an allocation of \$4.1 million per annum for 2015-16, 2016-17 and 2017-18 to establish and support Green Industries SA.

The South Australian Government's policy goals for Green Industries SA are:

To work with businesses, governments and the environmental sector to

- Realise the full potential of the 'Green Economy' and help to keep South Australia at the forefront of green innovation.
- To build on the success of Zero Waste SA, as it has delivered on reduced waste to landfill and increased the State's capacity for recycling.
- To recognise that waste management is a key environmental issue, and presents an opportunity to contribute to the State's economic growth.
- That the organisation will:
 - help businesses to find new overseas markets for their waste management knowledge and skills
 - help businesses to reduce their costs through more efficient use of raw materials, water and energy
 - administer grants to Local Government and industry to explore new technologies
 - be required to report against targets to ensure South Australia continues to reduce waste to landfill and achieve water and energy efficiencies
 - be established as a statutory corporation governed by its own legislation, with board representatives from State and Local Government, industry, and the environmental sector.

South Australia's Waste Strategy

South Australia's Waste Strategy 2015-20 (in preparation) is the third such strategy for the State. It provides a framework to assist South Australia meet its priorities for economic prosperity and community well-being. The Strategy takes into account the findings of a major independent review of *South Australia's Waste Strategy 2011-15* undertaken in 2013 and lead by a team of international and national waste management experts.

Its three objectives are as follows:

- a resource efficient economy where the best or full value is secured from products and materials produced, consumed and recovered across the state
- a stable and efficient market for investors through a clear policy framework providing a solid platform for investment decisions
- a culture enabling the South Australian community business and institution to continue and strengthen their role in implementing zero waste strategies and programs locally, nationally and internationally.

These objectives complement those of this Business Plan and provide the framework for the agency's activities described in this document.

**OBJECTIVE 1: TO WORK WITH BUSINESSES, GOVERNMENT AND THE ENVIRONMENT
SECTOR TO KEEP SOUTH AUSTRALIA AT THE FOREFRONT OF GREEN INNOVATION IN THE
WASTE, RECYCLING AND RESOURCE RECOVERY SECTORS**

Help businesses and government make more efficient use of raw materials, energy and water, thereby reducing consumption, reducing waste, and reducing costs

Zero Waste SA will continue to work to enable governments and industry to measurably reduce their environmental impacts and business costs. The Industry Program, under the stewardship of Zero Waste SA, has delivered waste, energy and water savings to business and government operations. In 2015-16, Zero Waste SA will continue this work, focusing on specific areas of high return for key industries. Improved government (including local government) procurement that rationalises waste and recycling contracts as well as procuring locally produced, fit for purpose, recycled or remanufactured goods is also a way that costs can be saved and local industry developed.

Industry Program: resource assessment and evaluation

Resource Assessment and Evaluation is part of the Industry Program and addresses waste avoidance and reduction. 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 works closely with other state government agencies including the Department for State Development, SA Water, Primary Industries and Regions SA, Department of Environment, Water and Natural Resources and the Environment Protection Authority to deliver holistic solutions for South Australian organisations. Together, these agencies provide key competencies in the areas of waste, water, energy, lean manufacturing, compliance, and climate change within the context of sustainable business practice.

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 reviews and building business cases to support investment in sustainable upgrades.

Key work to be undertaken during 2015-16 includes:

- attracting key businesses to undertake resource assessment and evaluation projects
- maximising the number of clients that implement resource efficiency by providing a sound business case that encourages implementation in effective and efficient waste, energy and water management

- identifying industry associations and business leaders who can assist with enabling change across sectors and through supply chains.

The Industry Program delivery model developed under the auspices of Zero Waste SA 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. 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.

2015-16 Budget: \$266,000

Industry Program: education, innovation and systems

The Education, Innovation and Systems initiative, part of the Industry Program, addresses innovative approaches to business sustainability as well as providing a support role to organisations wanting to learn more about resource efficiency. It examines opportunities for advanced technologies, methodologies and systems, and concepts of a green/circular economy. Much of this work will be undertaken in regional areas including the South East of South Australia where a Zero Waste SA Program Adviser is located. During 2015-16 work will be undertaken in the following areas:

- **Circular economy and industrial symbiosis**
 - identifying market failures associated with the transition to a circular economy¹
 - facilitating an integrated and structured approach to industrial symbiosis whereby one organisation's waste is a useful and valuable input to another organisation.
- **Sustainable business education and engagement**
 - advising and informing on 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 for business sustainability

¹ 'A circular economy is an alternative to a traditional linear economy (make, use, dispose) in which we keep resources in use for as long as possible, extract the maximum value from them whilst in use, then recover and regenerate products and materials at the end of each service life', WRAP, United Kingdom, <http://www.wrap.org.uk/content/wrap-and-circular-economy>

- providing networking and training opportunities
 - offering sustainability mentoring and waste and recycling contract advice
 - developing case studies to showcase the achievements of organisations, particularly those that can be replicated across industry sectors (published on the agency's website).
- **Procurement systems**
 - advising on sustainable procurement and building sustainable supply chains (including government).

2015-16 Budget: \$266,000

Support the food and beverage industry in making improvements to the way trade waste is managed, reduce operating costs and increase productivity by improving the way material, energy and water are used.

The Office of Green Industries SA will administer the South Australian Government's Trade Waste Initiative; a new two-year program that aims to provide industry with expert, practical advice on trade waste management, resource efficiency and productivity, and offers matched grant funding to eligible businesses for implementing trade waste improvements that can reduce business costs and improve performance. By reducing the amount of waste and contaminants discharged by sewer or other means, this program will improve the environmental performance of South Australia's manufacturing industry.

Trade Waste Initiative: resource productivity assessments

Resource Productivity Assessments for eligible trade waste-producing businesses provide tailored advice to identify opportunities for improving the way trade waste, energy, materials and water are managed, and will recommend areas for improvement to enhance productivity and performance.

South Australian businesses that can provide evidence of generating and discharging trade waste that meets, exceeds, or falls within 20% of meeting the following volume and load-based (VLB) thresholds are eligible to participate:

- 10 tonnes Biological Oxygen Demand (BOD) or Suspended Solids (SS) per year
 - 20 tonnes Total Dissolved Solids (TDS) per year
- OR
- 10,000 kL volume per year

A panel of preferred suppliers will be established to deliver the assessments in accordance with assessment guidelines developed by the Office of Green Industries SA.

Eligible businesses can apply for grant funding to cover up to 50% of the assessment cost, capped at \$10,000 (excluding GST) per applicant.

Approved Resource Productivity Assessments will form the basis of applications made by food and beverage businesses that are eligible for the Trade Waste Initiative implementation grants.

2015-16 Budget: \$1,004,000

Trade Waste Initiative: food and beverage implementation grants

The purpose of implementation grants is to support food and beverage businesses with implementing recommendations arising from their resource productivity assessment.

Implementation grants will be available to SA Water trade waste food and beverage customers that trigger or are about to trigger the VLB trade waste thresholds stated above (under resource productivity assessments) and that have completed an approved resource productivity assessment.

Grant funding is limited to implementation activities recommended in the assessment, and is only available for activities that are expected to lead to trade waste improvements, such as:

- new plant/equipment that will lead to improvements in trade waste quality and/or quantity
- upgrades to existing plant/equipment that will lead to improvements in trade waste quality and/or quantity
- shared infrastructure that will lead to improvements in trade waste quality and/or quantity in a select geographical area
- staff training and education that will lead to improvements in trade waste quality and/or quantity.

Eligible businesses can apply for grant funding to cover up to 50% of recommended implementation costs, capped at \$300,000 (excluding GST) per applicant.

Funding submissions will be assessed according to benefits to the business, the environment, the community, and the economy.

2015-16 Budget: \$1,190,100

Administer grants to Local Government and industry to explore new technologies in the waste, recycling and resource recovery sectors

Zero Waste SA's focus in 2015-16 will be on small grants for innovative processes or technology in the waste, recycling and resource recovery sectors. Zero Waste SA will also work to leverage additional funding, including funding from other government departments and the private sector to encourage entrepreneurs and innovation.

Innovation Grants Program: special infrastructure projects – innovation and locally developed technology

The Innovation Grants Program will provide small grants for innovative projects or processes in the areas of:

- infrastructure investment (new technology) for cleaner production and resource efficiency
- solutions to growing problematic new waste streams such as e-waste, plastics, packaging and tyres
- solutions to issues of potentially global commercial application and best practice waste systems
- remanufacturing
- other technology or better processes that reduce waste in the first place.

Funding submissions will be assessed according to benefits to the environment, the community and the economy in terms of jobs growth and industry development.

Other considerations will include the capacity for commercialisation and links to existing industry or potential for new industry development in South Australia.

Addressing problematic waste streams for which solutions are either difficult from a scale or cost perspective, are non-existent, or which will have international commercial application will also be considered.

2015-16 Budget: \$345,000

Benchmarking and Developing the Waste, Recycling, Resource Recovery and Related Sectors in South Australia

This program will investigate the economic, environmental, and jobs growth potential for future opportunities in the waste, recycling, resource recovery and related sectors, to inform how these are best supported to achieve outcomes that align with the State's economic priorities.

Benchmarking and Developing the Waste, Recycling, Resource Recovery and Related Sectors in South Australia

In 2015-16, Zero Waste SA will investigate the economic, environmental, and jobs growth potential for future opportunities in the waste, recycling, resource recovery and related sectors, to inform how these are best supported to achieve outcomes that align with the State's economic priorities.

The project will identify evaluation criteria and measurement of key indicators, and will culminate in the development of a strategy for developing these sectors in South Australia.

2015-16 Budget: \$117,000

Helping businesses find new overseas markets for their waste management knowledge and skills

Waste management is a prominent and difficult problem in many countries including Asia and India. Often the equipment is available and the regulations are in place. However the knowledge and capacity to implement systems that feed the technology is missing. Opportunities are emerging for South Australia to be a training destination for overseas practitioners, whether these are in behaviour change or systems design and deployment, or alternative technology policy. Zero Waste SA's involvement in international developments, in some cases with other state government and industry partners, has included providing advice in forums and assistance to develop strategies. These experiences include a zero waste strategy developed for the United Nations and the capital of Gujarat, India (Ahmedabad), participation in a fact-finding mission to Shandong, China, and advice to UN organisations regarding recovery from the Japan Great Eastern Earthquake and tsunami. South Australia is acknowledged as a leader in these areas and business opportunities abound as communities seek solutions to waste from traditional activities such as construction and demolition as well as growth in problematic new waste streams such as e-waste, plastics, packaging and tyres.

Export opportunities and international policies

Internationally, Zero Waste SA has established a reputation for leadership in waste management and resource recovery. Working with other jurisdictions internationally and nationally assists Zero Waste SA to develop, coordinate and contribute to the implementation of South Australia's waste management policy objectives.

As South Australia's credentials grow globally, there will be further opportunities for our businesses to export their expertise and develop pragmatic solutions that are fit for purpose in other jurisdictions. Supporting local businesses to grow their export markets is a key focus for the Government. Many of South Australia's waste management and resource recovery businesses have yet to realise their full export potential. Many remain small family run businesses and cover the full ambit of the industry from landfill and landfill gas extraction and energy production to composting and consulting services.

In 2015-16 Zero Waste SA will work on the following export opportunities:

India

India is a large and emerging market for green industries. Waste management is a major opportunity as Australia can offer robust approaches based on our own experiences. For example, Zero Waste SA has, with the assistance of a local consultant funded by the United Nations Centre for Regional Development (UNCRD), developed a waste strategy for Ahmedabad in Gujarat India. The *Ahmedabad Roadmap for Zero Waste* identifies more than 34 strategic actions which are now being implemented.

Work will continue on an engagement strategy with India with the aim of promoting South Australia's capabilities in waste management and resource recovery. This work is being undertaken in consultation with the Department of State Development and is aligned with the State Government's South Australia-India engagement strategy

China

The global Green Economy is expected to grow significantly over the next 20 years. China has already invested heavily in the clean energy and environment industry sectors and has set a long-term green vision, increasing employment opportunities and new industries. Zero Waste SA will identify local businesses which have an interest in developing export and investment opportunities, particularly in Shandong. This work follows participation in the High Level Working Group for Shandong fact finding mission to China and subsequent visits from Chinese companies to South Australia.

South East Asia

A State Government engagement strategy will focus on Indonesia, Malaysia and Singapore. South Australian companies such as Resource Co and Bio bin are already active in the region. There is a strong opportunity to enhance this engagement and develop long lasting export potential for South Australian expertise in engineering and design, policy development and regulation, training and education in addition to off-the-shelf products.

2015-16 Budget: \$317,000

OBJECTIVE 2: TO DELIVER ON REDUCED WASTE TO LANDFILL AND INCREASE THE STATE'S CAPACITY FOR RECYCLING

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

Zero Waste SA is the custodian of data and information to measure the State's progress against indicators in the State's Strategic Plan, South Australia's Waste Strategy and relative to other jurisdictions, and to guide investment opportunities and identify barriers. It is also a transparent way to be accountable to community expectations. Data is also needed to effectively evaluate programs and market interventions by Zero Waste SA, for example the results of innovation grants, overseas investment to South Australia or export outcomes from the sector.

Waste audits and recycling activities study

South Australia's Strategic Plan 2011 (SASP) has a target of reducing waste to landfill by 35% in 2020 against a 2002-03 baseline. Since 2003-04, Zero Waste SA has undertaken an annual review of recycling activity in South Australia to guide activities and programs and to monitor progress of South Australia against targets in the SASP and *South Australia's Waste Strategy 2011-2015*. Data is collected from South Australian recyclers and re-processors 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.

The survey is retrospective and the next survey funded by the agency will be undertaken in 2017-18. In 2016-17 data collection will be funded by the Australian Government for inclusion in the national report on waste.

2015-16 Budget: \$19,000

Building our knowledge and data on waste and recycling (ZEUS)

ZEUS, the Zero Waste Environmental User System, is a state-of-the-art web-based system developed by Zero Waste SA to facilitate the monitoring, analysis and reporting on waste reduction targets in South Australia's 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.

ZEUS is also used to capture corporate data including contract information, agency publications and industry and stakeholder contacts.

In 2015-16 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. Councils can use ZEUS at no cost, with training and support provided for free by Zero Waste SA.

2015-16 Budget: \$195,000

Waste policy and advocacy

Zero Waste SA will maintain a strong role in policy development, advocacy and implementation. Zero Waste SA will continue to advocate for new product stewardship approaches for products and materials that will in turn provide market opportunities for South Australian businesses. Targeted public expenditure, policy reforms and regulation changes all assist in removing barriers to business and build capacity in the waste, recycling and resource recovery sectors to participate and thrive.

Waste strategy policies and review

Zero Waste SA will take a lead role in developing policy and where appropriate encouraging regulatory solutions to support implementation of South Australia's Waste Strategy. Key areas of focus for 2015-16 include the following projects and activities:

Planning for waste infrastructure

During 2015-16 Zero Waste SA will complete the development of the State's strategic waste management infrastructure plan. The plan will guide investment decisions for waste and resource recovery. It is being developed in consultation with other government agencies such as the Department of Planning, Transport and Infrastructure, the Environment Protection Authority and the Department for State Development. 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.

Development of this plan is in response to a critical finding of the *Review of South Australia's Waste Strategy 2011-15* that the waste and resource industry is estimated to require some \$400 to \$700 million of new investment during the next 10 to 15 years in order to address vital

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. It is expected that the level of investment will provide employment for 2000 to 3000 people

Disaster waste management

The *Review of South Australia's Waste Strategy 2011-2015* identified disaster management waste planning as an important area of policy development. In response to this finding, in 2014-15 Zero Waste SA secured a \$40,000 grant under the Commonwealth Government's Natural Disaster Resilience Program. The grant has enabled the commissioning of a scoping study to assist with the development of a contingency plans for natural disasters according to four scenarios – earthquakes, bushfires, flood, and severe storms.

A Project Advisory Group is overseeing the project with representatives from nine government agencies, the Local Government Association of South Australia and Waste Management Association of Australia (WMAA) South Australian Branch. During 2015-16 Zero Waste SA will:

- further develop the policy to fit in the current State Emergency Management Framework
- identify location-based data needs and sources to inform the feasibility of establishing a GIS database for use in zone-based waste management plans.

Product stewardship

South Australia's Waste Strategy 2015 - 2020 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 identify opportunities and guide future direction regarding appropriate management of these materials. Zero Waste SA will contribute to and undertake policy work in these areas where required and be a strong advocate for better national product stewardship systems for tackling problematic wastes as well as acting independently in the State's interests. This will also support materials banned from landfill under the *Environment Protection (Waste to Resources) Policy 2010*.

Other policy work

Zero Waste SA will maintain an interest in, and contribute to, the development and implementation of policies and other initiatives relating to contaminated soil (reuse and remediation opportunities), energy from waste (consistent with the guidance of South Australia's Waste Strategy 2015-2020) and improved waste management systems for multi-unit dwellings and mixed use developments. In addition, it will support the State Government's work to transition to a local carbon economy and making Adelaide, South Australia's capital city, the world's first carbon neutral city through the establishment of a carbon neutral 'Adelaide Green Zone'.

2015-16 Budget: \$302,000

Local Government Association of South Australia

In 2015-16, Zero Waste SA will continue the successful partnership with the Local Government Association of South Australia to support the implementation of the Waste Strategy and policy goals for the Green Economy in relation to the following areas:

- coordinating and advocating for national solutions to problematic waste such as packaging and hazardous waste
- facilitating access to grant funding such as the Innovation Grants or funding programs offered by other organisations
- 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.

2015-16 Budget: \$29,000

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 a 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 information to members regarding the transition to and establishment of Green Industries SA.

2015-16 Budget: \$37,000

Tertiary education sector (UniSA) partnership

In 2015-16 Zero Waste SA will fund the Pam Keating Memorial Scholarship that was established to honour the memory of Pam Keating, a noted environmentalist and waste management expert.

2015-165 Budget: \$50,000

Implementing South Australia's Waste Strategy 2015-20

South Australia's Waste Strategy under the custodianship of Zero Waste SA forms part of the framework of policies, strategies and plans intended to meet South Australia's priorities for economic prosperity and community well-being. The Waste Strategy is based on waste management hierarchy and the principles of ecologically sustainable development, best practice methods and standard and open dialogue with local government, industry and the community.

Household hazardous waste and farm chemical collection

Household chemicals can be dangerous without safe storage and disposal. South Australians are provided with 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.

Zero Waste SA will continue funding and managing the Hazardous Waste Depot at Dry Creek. The depot is open between 9am and 12 noon on the first Tuesday of every month. The facility has been invaluable to the South Australian community.

In line with the Waste Strategy, in 2015-16 Zero Waste SA will:

- continue to fund a household and farm hazardous waste collection program 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.

2015-16 Budget: \$204,000

Metropolitan Infrastructure Program

The Metropolitan Infrastructure Grant 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 2015-16, funds will be spent on these projects as final commissioning/construction is completed and final milestones are achieved.

2015-16 Budget: \$347,000

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 2015-16 will be allocated to projects awarded in the last three rounds as projects gain achieve their final milestones of commissioning and construction.

2015-16 Budget: \$209,000

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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. The Waste EPP has progressively banned certain wastes to landfill including whitegoods, computers, televisions and other electronic waste, oil, lead acid batteries and compact fluorescent lights. Zero Waste SA has a supporting role to enable the Waste EPP.

BackLight Household Light Globe Recycling Program

Zero Waste SA will continue to help householders to 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. The aluminium and mercury is used to make new light globes, the phosphor powder is used in fertilizer, and the glass is re-used for a variety of other glass products. From January 2011 to June 2013, the program collected more than 92,418 lamps and globes from householders for recycling equating to a total of 9,393 kilograms.

2015-16 Budget: \$62,000

Community education and litter

Keep South Australia Beautiful *environmental solutions* (KESAB) has a valued role as a partner delivering Zero Waste SA programs to schools and households on litter measurement, reduction, education and awareness. A new three-year service level agreement will define the community education and engagement outcomes to support the objectives of the Waste Strategy. Individual KESAB programs to be funded by Zero Waste SA under the agreement are summarised below.

Litter data and research and branded litter monitoring

KESAB 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 helps 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.

In 2015-16 KESAB will:

- 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 measureable 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.

2015-16 Budget: \$49,000

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.

In 2015-16 KESAB will:

- 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.

2015-16 Budget: \$64,000

Wipe Out Waste

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, 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.

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.

2015-16 Budget: \$239,000

Consumption and waste avoidance – sharing initiative

The 'sharing economy' (also known as 'collaborative consumption' or 'peer to peer' economy) is a global movement where people use 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.

Share N Save

Under the stewardship of Zero Waste SA, the Share N Save website was launched in 2013, the first of its kind for any government in Australia. It is an interactive map which identifies food swaps, community gardens, Men's Sheds, toy and tool lending libraries, co-working spaces and other resources. It assists South Australians to reduce household financial pressures through sharing activities and increasing the use of resources to avoid consumption and associated waste.

The website is available at: www.shareNsave.com.au; [www.twitter.com/shareNsave](https://twitter.com/shareNsave);
www.facebook.com/shareNsave

The website has been released as open source available at <https://github.com/ShareNSave> to enable organisations around the world to benefit from it and build upon it. This step was undertaken in response to strong international interest from leaders of the sharing movement including OuiShare co-founder Antonin Léonard, Shareable co-founder Neal Gorenflo, David de Ugarte from Las Indias co-op, and Dr Ann Sophie Novel a French journalist with connections to the Bordeaux government who is involved in a project mapping the sharing economy in the Bordeaux.

The wider take up of the software reinforces South Australia's reputation as leaders in the sharing and collaborative economy and showcases the expertise of South Australia's designers and software developers. There is potential for local businesses to export their IT knowledge globally.

During 2015-16 the following activities will be undertaken:

- identify opportunities to extend the use of the Share N Save platform to enable industry and business to benefit from collaborative economy activities such as 'industrial symbiosis'
- support the development and promotion of collaborative production approaches such as maker and co-working spaces, as the engines of 21st century job creation
- improve the functionality of the website to encourage use through interactive features
- encourage local design and programming firms to adopt the open source platform of Share N Save and develop skills in assisting other jurisdictions to install and customise the platform
- Investigate with other sharing organisations and individuals the feasibility of developing standards for sharing icons. For instance, creating a globally-recognized icon for a co-working space, or community garden, or bike share. The Share N Save icons are simple, clear, and gaining attention.

2015-16 Budget: \$77,000

Dob in a litterer

The Dob In A Litterer (DIAL) application (app) is being developed using local South Australian technology talent to build a world class method of reporting litter. The app delivers on a 2014 election promise to enable South Australians to report litter through the use of a mobile app and companion website. Implementation is subject to the Local Nuisance and Litter Reporting Bill being developed by the Environment Protection Authority.

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 is 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
- explanations of how the programme 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 2015-16, 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.

2015-16 Budget: \$28,000

CORPORATE SUPPORT

Communications, media, marketing and website

Zero Waste SA's communications, media and marketing activities target industry, government and community. Communications aim to raise awareness of Zero Waste SA's purpose, achievements and programs. The main channels for communications include an e-newsletter, fact sheets and case studies and social media. In 2015-16, the new www.greenindustries.sa.gov.au website will be developed to ensure content is relevant, accurate and up-to-date as well as being easy to navigate.

2015-16 Budget: \$140,000

Zero Waste SA Board support

The Office of Green Industries 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 approximately 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 staff salaries and on-costs allocated to support the Board function.

2015-16 Budget: \$212,000

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.

2015-16 budget: \$1,147,000

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. The approved expenditure authority for 2015-16 is \$6.915 million.

Revenue and expenditure

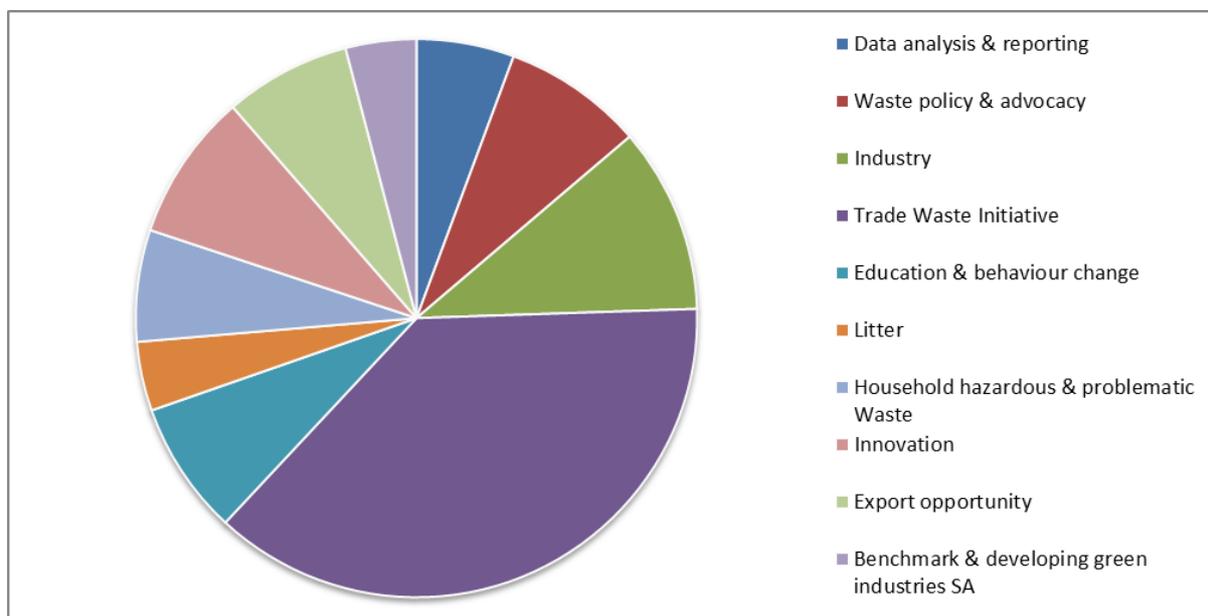
Revenue (estimated)	2015-16 (\$)
Cash held 1 July, opening balance	68,572,000
50% of waste levy payments from Environment Protection Authority	22,642,000
Interest on deposits	1,400,000
Income from external sources	0
Total estimated cash closing balance – Waste to Resources Fund	85,868,000
Expenditure authority	6,915,100

Expenditure

	2015-16 (\$) Budget
1. Key objective: To work with businesses, governments and the environment sector to keep South Australia at the forefront of green innovation in the waste, recycling and resource recovery sectors.	
Help businesses and government make more efficient use of raw materials, energy and water, thereby reducing consumption, reducing waste, and reducing costs	
Industry Program - Resource assessment and evaluation	266,000
Industry Program - Innovation and systems	266,000
Trade Waste Initiative – Resource productivity assessments	1,004,000
Trade Waste Initiative – food and beverage implementation grants	1,190,100
Sub-total	2,726,100
Administer grants to Local Government and industry to explore new technologies	
Innovation Grants Program	345,000
Sub-total	345,000
Benchmarking and Developing the Waste, Recycling, Resource Recovery and Related Sectors in South Australia	
Benchmarking and Developing the Waste, Recycling, Resource Recovery and Related Sectors in South Australia	117,000
Sub-total	117,000
Helping businesses find new overseas markets for their waste management knowledge and skills	
Export opportunities and international policies	317,000
Sub-total	317,000
TOTAL OBJECTIVE 1	3,505,100
2. Key objective: To build on the success of Zero Waste SA in delivering reduced waste to landfill and increasing the State's capacity for recycling	
Measurement, analysis, evaluation and reporting to support targets and assess the adequacy of the Waste Strategy	
Waste audits and recycling activities	19,000
Building our knowledge and data on waste and recycling (ZEUS)	195,000
Sub-total	214,000
Waste policy and advocacy	
Waste strategies policy and review	302,000
Local Government Association of South Australia	29,000
Waste Management Association of Australia (South Australian Branch)	37,000
Tertiary education sector (University of South Australia) partnership	50,000
Sub-total	418,000
Implementing South Australia's Waste Strategy	
Household Hazardous Waste and Farm Chemical Collection Program	204,000
Metropolitan Infrastructure Grant Program	347,000

Regional Implementation Grant Program		209,000
	Sub-total	760,000
Support implementation of the Waste EPP		
BackLight		62,000
	Sub-total	822,000
Community education and litter (KESAB <i>environmental solutions</i> partnership)		
Litter data and research and branded litter monitoring		49,000
Community litter, education, resources and campaigns		64,000
Wipe Out Waste		239,000
	Sub-total	352,000
Consumption and waste avoidance - sharing initiative		
Share N Save		77,000
	Sub-total	77,000
Dob in a litterer		
Dob in a litterer		28,000
	Sub-total	28,000
	TOTAL OBJECTIVE 2	\$1,911,000
Corporate support		
Communications, media, marketing and website		140,000
Zero Waste SA Board support		212,000
Corporate services		1,147,000
	TOTAL CORPORATE SUPPORT	1,499,000
	CURRENT TOTAL	6,915,100
	Expenditure authority	6,915,100

Budget distribution chart



South Australia's achievements in waste management and recycling

Landfill data for 2013-14 indicates that South Australia has reduced waste to landfill by 26.88% since 2002-03, equivalent to 336,000 tonnes of waste. SA has therefore achieved its 2014 Target (SA Government, 2011).

Recycling activity data collected for 2013-14 shows that South Australia remains a strong performer in recycling and recovery of resources. The 2013-14 SA Recycling Activity Report (Rawtec) shows that 3.59 million tonnes of materials were diverted from landfill and into recycling in 2013-14 with a diversion rate of 79.7%, the highest reported rate compared with other states and territories in Australia.

South Australia's recycling efforts have prevented the equivalent of about 1.12 million tonnes of carbon dioxide entering the atmosphere, which is the equivalent of taking approximately 257,000 passenger cars off the road. The report identifies other estimated environmental benefits resulting from recycling activity are:

- energy savings of 14,650 tera joules (TJ), equivalent to 2.6 million barrels of oil or the energy use by 285,100 average households in one year
- water savings of 12,310 mega litres (ML), equivalent to 4,920 Olympic sized swimming pools or the water use by about 64,790 average Adelaide households in one year.

The report estimates that the total 'direct' market value of resource recovered materials for South Australia in 2013-14 was \$270 million, or \$75 per tonne of resources recovered on average. Metals, paper and cardboard and organic waste materials were the major contributors to this market value.

South Australia's total landfill disposal during 2013-14 was 0.914 million tonnes, a decrease of 9% from the 1.01 million tonnes recorded in 2012-13. 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 above 3.5 tonnes each year
- the diversion rate has steadily increased from just above 60% to towards 80%.

South Australian Government’s Economic priorities

The South Australian Government has also released Economic Priorities for the State: ‘South Australia is the place where people and business thrive’ with 10 priorities for action. It is anticipated that Green Industries SA will form part of the strategy to meet these priorities, as outlined in the figure below.

The 10 economic priorities are:

- unlocking the full potential of South Australia’s resources, energy and renewable assets
- premium food and wine produced in our clean environment and
- exported to the world a globally recognised leader in health research, ageing and related
- services and products
- the knowledge state – attracting a diverse student body and commercialising our research
- South Australia- a growing destination choice for international and domestic travelers growth through innovation
- South Australia – the best place to do business
- Adelaide, the heart of the vibrant state
- promoting South Australia’s international connections and engagement
- South Australia’s small business have access to capital and global markets.

Green industries SA will form part of the strategy to meet these priorities

as summarised in Figure 1 below.

	Unlocking the full potential of South Australia’s resources, energy and renewable assets.	Premium food and wine produced in our clean environment and exported to the world.	A globally recognised leader in research, ageing and related services and products.	The Knowledge State - attracting a diverse student body and commercialising our research.	South Australia – a growing destination choice for international and domestic travellers.
GREEN INDUSTRIES SA	Use of recycled materials in remanufacturing. Cleaner production and resource efficiency.	Cleaner production and Resource efficiency. Hazard reduction.	Operational research through collaborative partnerships with universities.	Research led work attracts international students and global awareness.	SA is perceived and is clean, free of litter and waste is handled in the most appropriate manner.
	Growth through Innovation.	South Australia the best place to do business.	Adelaide the heart of the vibrant state.	Promoting South Australia’s International connections and engagement.	South Australia’s small businesses have access to capital and global markets.
GREEN INDUSTRIES SA	Innovation grants to specific sectors focussed on resolving problematic issues of potentially global commercial application.	Waste and recycling companies and consultancy firms are aligned with the needs of smart businesses, advising on better waste handling, processes and waste reduction initiatives. Commercial economic savings for industry to reduce cost of doing business.	Best practice waste systems, remanufacturing and other technologies are operating and on show. Strong public support for same.	Exporting IP and local technology to China, India and ASEAN countries.	Introducing local businesses to international investors facilitating capital investment.

- Source: Green Industries SA Consultation Paper