

Business Plan 2019-20



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FOREWORD

Green Industries SA continues to evolve in response to economic, demographic, technological and environmental trends and challenges impacting both South Australia and globally.

The demand for less contamination and better feedstocks for remanufacturing processes will continue. This requires investment in new sorting technologies, education and better procurement processes for recycled content products.

As South Australia aims to maintain its leadership position in the sector there are new opportunities which will also help diversify the state's economy through circular thinking.

Through policy development, programs and partnerships Green Industries SA is providing a solid platform for change. Our purpose is to lead the development of the circular economy in South Australia through diverse collaborations which improve productivity, resource efficiency and the environment.

A critical imperative remains the need to build the resilience and capabilities of the state's waste management and recycling industry in the aftermath of China's National Sword Policy. Responding to the disruptive impacts of this policy remains a high priority.

Initiatives such as co-investment in new and expanded infrastructure, financial incentives to develop markets, advocacy for sustainable procurement, and evidence-based community education to drive behavioural change are essential: other countries are following China's lead in banning the importation of waste.

More broadly, improved waste management practices through industry development are an opportunity to contribute to the state's economic growth by creating green jobs and developing new business opportunities.

Growth in the waste and recycling sector will result from re-manufacturing and investing in technology to improve sorting and market development for recycled content products and materials

A case in point is the state government's national leadership to examine the phasing out unnecessary single-use plastic products. It has seen strong community support in response to the *Turning the tide on single-use plastic products* discussion paper we released in January 2019.

One local manufacturer, Detmold Packaging Pty Ltd, is already pre-empting the potential for a first-to-market advantage in response to the single-use plastics products discussion paper and is preparing to harness the opportunities arising from developing new and alternative 'green' products.

Our next steps will unfold this year as we analyse business impacts, engage with industry and develop supporting strategies such as plastic-free retail precincts where alternative products which are recyclable and/or compostable are trialled. It is an exciting time as the agency embarks on another ground breaking initiative similar to the single-use plastic bag phase-out in 2009.

2019-2020 State Budget

The State Budget has provided \$10 million of new funding over four years in a package which aims to boost recycling and resource recovery through investment, infrastructure, education and modernisation of council and industry collection services:

- \$4 million of grant funding for council and industry to enable investment in modern infrastructure to improve processing which will increase efficiency and boost jobs – see *Recycling Infrastructure Grants Program*, page 7
- \$5.5 million for councils and industry to upgrade and standardise waste collection and recycling services as well as expand education aimed at improving recycling knowledge in the community – see *Council Transition and Regional Subsidies Program*, page 8
- \$500,000 to help local governments implement new waste management strategies to divert food waste from landfill – see *Local Government Program (food waste)*, page 8

Key lessons learned from that phase-out are still applicable – authentic communications, flexibility and responsiveness to stakeholder and industry issues and expertise.

Other policy work will include the completion of South Australia's waste strategy for 2020-25 and development of South Australia's food waste strategy. The food waste strategy is a response to global, national and state-wide policy imperatives to reduce waste, reduce greenhouse gas emissions and drive change at the industry, local government and community levels. It is also an area of biggest impact in terms of reducing and diverting household waste from landfill.

Investment in innovation is critical to reinforcing the state's global reputation for exemplar leadership in the waste management and recycling sector and is a strong theme in many of the agency's activities. Following the success of our first commercialisation of innovation program (see page 12), Innovyz Institute Pty Ltd will complete the delivery of a second program focusing on the recycling, resource recovery and the circular economy. The program is benefiting the local economy through business capacity building, supply chain benefits, and industry collaboration. This is encouraging and typical of the *esprit de corp* which characterises South Australia's industry.

Measures to develop a circular economy in South Australia will progress, with an emphasis on developing a robust evidence base with high quality data to inform policy and decision making. Complementing this work is the agency's investment in the export of Intellectual Property through the Global Leadership Program on the Circular Economy and engagement with India, China and the Asia-Pacific region.

Through these initiatives we are positioning South Australia as the go-to place for innovation in the recycling and resource recovery sectors.



Kevin McGuinness
Presiding Member, Board of Green Industries SA

KEY STRATEGIC PRIORITIES AND FUTURE DIRECTIONS¹

KEY DRIVERS FOR CHANGE

Advocacy and policy <i>Creating impact and change in and beyond SA</i>	Regulation <i>Influencing step-wise change and challenging the norm</i>	Incentives and support <i>Influencing where investment is best placed</i>	Innovation and research <i>Identifying technologies for commercialisation and investment</i>	Education, behaviour change, capacity building <i>Communicating a narrative and the link to a better community</i>
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KEY PRIORITY	2019-20 BUSINESS PLAN
Reforming household waste <i>Ensuring the best possible approach to managing our waste and resources while also benefiting business and industry</i>	<ul style="list-style-type: none"> • Recycling Infrastructure Grants Program (industry and local government) 7² • Local Government Program (food waste) 8 • Household recycling education program 8 • Household hazardous waste collections 17 • Local Government Association of South Australia partnership 18
Reducing food waste and developing industries <i>Saving money, protecting the environment and stimulating industry development</i>	<ul style="list-style-type: none"> • Recycling Infrastructure Grants Program (industry and local government) 7 • Local Government Program (food waste) 8 • South Australia's food waste strategy 13
Reforming packaging and single-use items <i>Reducing the environmental impacts of excess packaging and single-use plastics and encouraging business to develop new alternatives</i>	<ul style="list-style-type: none"> • Single-use plastic products phase-out and plastic-free precinct trial 13 • Circular Economy Recycling Market Development Grants Program 7
Developing the circular economy in business <i>Protecting the environment and boosting economic development</i>	<ul style="list-style-type: none"> • Circular Economy Market Development Grants Program 7 • Circular Economy Platform 10 • Global Leadership Program on the Circular Economy 10 • Business Sustainability Program 14 • Commercialisation of Innovation Program 11
Preparing for disaster waste management <i>Building community and business resilience</i>	<ul style="list-style-type: none"> • Disaster waste management capability plan implementation 21

¹ Green Industries SA Strategic Plan 2018-2023 at <http://www.greenindustries.sa.gov.au/strategic-plan>

² Business Plan page reference for program description and budget

Future Directions

The opportunity to leverage innovative science, chemistry and engineering capabilities to lower the time, cost and precision required to extract the maximum value of waste will continue to gather pace with a global perspective.

New materials, while presenting an opportunity for some sectors, will present challenges for the waste and recycling sector.

Initiatives will be broadly delivered in the context of the United Nations Sustainable Development Goals and the imperative to conserve resources and reduce pollution and establish Adelaide as a demonstration destination for the Sustainable Development Goals in action.

The integrated model which has underpinned the agency's success to date – combining long term strategic planning; regulation; collaboration; a market focus and evidence-based policy – will have a broader application in green industry development and the circular economy. The circular economy will become a focal point for collaborative research and work to identify the new jobs and the business models, and Green Industries SA will act as a catalyst to stimulate investment in these new industries.

Investment in innovation which tackles long standing problematic waste issues (and which are globally relevant) will also gather pace. Newer areas of investment could support initiatives which enable energy efficiencies and greenhouse gas savings from the application of new technologies. With the 'low hanging fruit' harvested, commercial solutions for difficult and problematic waste streams will have been commercially developed.

South Australia's waste management and resource recovery infrastructure will continue to develop. New infrastructure will include an expanded network of permanent facilities for hazardous waste collection and community-based facilities associated with new industries linked to the circular economy and emerging networks of the new circular and collaborative economies.

South Australia's container collection depots are overdue for updating and it can be expected that significant investment in advanced automation technology will be part of this modernization strategy.

We can also expect that national Extended Producer Responsibility for all e-waste, hazardous wastes, tyres, paint and oil and gas bottles will have been completed. Metropolitan food waste collections will be universal systematised for both households and commercial premises. Resource efficiency will be part of the normal way of doing business – awareness increased and uniform and centralised recycling education.

KEY OBJECTIVE 1: PROMOTING INNOVATION AND BUSINESS ACTIVITY IN THE WASTE MANAGEMENT, RESOURCE RECOVERY AND GREEN INDUSTRY SECTORS

INFRASTRUCTURE INVESTMENT

Recycling Infrastructure Grants Program - Industry and Local Government

Council and industry operated infrastructure, recycling businesses and container deposit depots will benefit from grant funding to enable investment in recycling and re-manufacturing to modernise infrastructure. Improved sorting and processing will enhance the quality of recovered materials. This funding will improve competitiveness and increase employment opportunities in the sector, while reducing waste to landfill.

South Australia's Waste and Resource Recovery Infrastructure Plan and *South Australia's Waste Strategy 2015-20* have long term strategic objectives to increase and maintain the capacity of South Australia's recycling systems and reprocessing infrastructure.

It recognises that continuing and significant investment is needed to enable South Australia to deal with its waste and, in response to the impacts arising from China's National Sword policy which have influenced international market conditions with low commodity prices and demand for high quality recyclable materials.

With export destinations requiring lower contamination levels in post-consumer recyclables there is greater emphasis on the need for recycling facilities to improve processes to reduce contamination to ensure high quality material can reach viable end markets, specifically post consumer paper, cardboard, glass, plastic and metals.

The *Shared Spaces Infrastructure Grants Program* supports the development of shared fabrication spaces which are open access workshops that address the upper part of the waste hierarchy.

These spaces promote a shift in the materials life cycle towards a circular economy through innovative approaches that deliver economic, environmental and social benefits.

Budget³

2019-20	2020-21	2021-22
\$7,840,000	\$4,732,000	\$3,298,750

Infrastructure Loan Scheme

A loan scheme of \$2 million provides as an alternative funding mechanism to fast track infrastructure projects with large capital requirements.

Eligible projects should have an immediate effect to increase local remanufacturing/reprocessing of targeted waste streams (including recovered paper, cardboard, plastic and glass).

³ Includes additional funding announced in the 2019-20 State Budget: \$1.0 million in 2019-2020; \$2.0 million in 2020-21; and \$0.5 million in 2021-22.

Budget⁴

2019-20	2020-21	2021-22
0	0	0

Circular Economy Market Development Grants Program

This program facilitates the increase in the quality and market demand for recyclable materials and recycled content products. Building stronger domestic recycling markets in response to fluctuating international market conditions will increase the resilience of South Australia’s local industry and counter the uncertainties of selling into overseas commodity markets.

With South Australia’s proven history for leadership in the recycling and resource recovery sector it is well positioned to demonstrate ‘circular’ thinking through incentives to improve and increase the value of hard-to-recycle waste materials.

For example, grants awarded under this program in 2018-19 targeted used shredded tyre rubber for road construction sub-base to reduce premature cracking. Another project targeted the local wine-industry’s end-of-life irrigation drip tubing for reprocessing into high quality resin and subsequent re-manufacturing into other products.

Industry collaboration along with purchasing by governments, business, and individuals of recycled materials and recycled-content products, market opportunities for new, sustainable products made from recycled materials, stimulate economic development and create jobs.

Budget

2019-20	2020-21	2021-22
\$500,000	\$329,000	\$315,000

COUNCIL TRANSITION AND HOUSEHOLD EDUCATION – STATE BUDGET MEASURE

This funding will assist councils to upgrade and standardise waste collection and recycling services to increase the kerbside diversion rate and reduce the amount of household waste sent to landfill. Funding will also assist councils with bin upgrades and associated infrastructure to meet Australian Standards. Regional communities will be assisted with transport costs.

Expanded education activities will aim to improve recycling knowledge and practices in schools, industry and households to reduce contamination in recycling bins and improve the quality for materials for recycling.

⁴ A loan facility for \$2 million has been established for infrastructure projects and will be recorded on the balance sheet when a loan agreement has been signed.

Local Government Program (food waste)

The single, largest remaining area for improvement in council kerbside systems is food waste, as it comprises 40% of the weight of household residual waste bins sent to landfill. The *Kerbside Performance Plus (Food Organics) Incentives Program* encourages councils to implement systems which assist with the diversion of food waste from landfill.

Councils receive a subsidy for the cost of bench-top containers, compostable bags and production of householder education material. Councils will be offered improved incentives to implement high-performing systems which assist with the diversion of food waste from landfill, the biggest component of household residual kerbside waste, and assist with reducing the cost of sending waste to landfill.

Funding will also be provided to pilot and evaluate organic waste collection models for high density residential dwellings and food processing and restaurant precincts (see footnote 4).

Budget⁵

2019-20	2020-21	2021-22
\$2,644,000	\$3,952,000	\$3,742,200

Council Transition and Regional Transport Subsidies Program

Modernisation and innovation in the local government sector through smart bins, technology upgrades, auditing support and other measures can assist further development of the three-bin system to increase landfill diversion, decrease contamination levels and improve data collection. High transport costs for recycling in regional areas has long been recognised as a barrier. This factor has been exacerbated by the flow-on effects of the China National Sword policy and international market demand for high quality recyclable materials. Transport subsidies to regional councils will assist councils to address this barrier and support their continued recycling efforts by offsetting some of the extra costs associated with processing and transporting collected recyclables.

Budget⁶

2019-20	2020-21	2021-22
\$1,827,000	\$1,822,000	\$872,000

Household Recycling Education Program

Responding initially to challenges arising from China's National Sword policy, a state-wide strategy has been developed to educate householders on correct recycling practices to reduce contamination in kerbside-collected bins and improve the quality of recyclable materials collected for recycling.

⁵Includes additional funding announced in the 2019-20 State Budget: \$0.2 million in 2019-2020; and \$0.3 million in 2020-21.

⁶ Of the \$1.6 million in additional funding for the new Council Transition and Household Education measure, funds have been transferred to support the Household Recycling Education Program: \$150,000 (2019-2020 and 2020-21); and Wipe out Waste and Litter Education program - \$50,000 (2019-2020, 2020-21, 2021-2022).

The new *Which Bin* campaign launched in May 2019 uses a range of media channels to target different age groups: TV commercials, digital and social media and high traffic outdoor advertising. In 2019-20 this suite will be extended to include a second series of TV commercials, as well as radio, billboards and direct mail in addition to updating Wipe Out Waste school education resources (see page 21).

Green Industries SA will continue to engage closely with local government as the *Which Bin* campaign is further developed and invest in branded and easy to understand household resources to support awareness and behaviour change.

A key activity in 2019-2020 will be a ‘deep dive’ into exactly what South Australians place in their kerbside-collected bins. Data collected from audits of household waste and recycling bins will be used to measure behaviour change activity to establish a correlation to the education campaign.

Budget (see footnote 6)

2019-20	2020-21	2021-22
\$1,036,000	\$1,055,000	\$907,012

CIRCULAR ECONOMY AND INNOVATION

Circular economy (including leadership program and circular economy platform)

A focus of international attention, a circular economy is an alternative framework to the wasteful traditional linear economy (make, use, dispose). The circular economy is a self-sustaining system driven by keeping material resources in use for as long as possible, to extract the maximum value while in use, then recovering and regenerating products and materials at the end of the product’s life.

It builds on the ‘reduce, reuse, recycle’ rungs of the waste hierarchy, the cornerstone of waste management policy globally and a fundamental legislative and strategy framework for Green Industries SA.

Green Industries SA will continue to lead circular economy policy development and practical implementation during 2019-20.

It will undertake detailed investigations and promote outcomes in printed and video case studies to increase understanding and encourage support for the circular economy in South Australia amongst target audiences and stakeholders.

Global Leadership Program on the Circular Economy

This program is delivered in partnership with the United Nations Centre for Regional Development and Circular Economy Alliance Australia Pty Ltd and will again be offered in July and December 2019.

The program was piloted in June 2018 and targets influential decision makers from the Asia-Pacific region.

It capitalises on South Australia’s global reputation for leadership in water, waste and energy and facilitates business-to-business introductions with representatives and experts from leading companies and organisations to stimulate the export of the state’s leading-edge ‘know how’ and technologies.

Circular economy platform

Building on the Global Leadership Program on the Circular Economy, further work will be undertaken to develop a local circular economy platform and strengthen engagement with business.

In 2018-19 case studies were produced on Premier Insulation, Holla-Fresh Pty Ltd (herbs and produce) and Domiciliary Equipment Service, South Australian Department of Human Services.

As the knowledge base and capability in circular economy application develops, this will assist to build a local ecosystem of businesses engaged in circular economy activities. This activity will reinforce South Australia's leadership in the sector.

Budget

2019-20	2020-21	2021-22
\$501,000	\$365,000	\$490,000

Commercialising innovation

The *Commercialisation of Innovation Program* is stimulating the development of technologies to address long-standing and problematic waste issues through investment in innovation and research.

The program recognises the potential to generate economic benefits for South Australia, and, to keep the state at the forefront of green innovation in this sector.

South Australian company Innovyz Institute Pty Ltd delivered the first program in 2017-18 which resulted in the commercialisation of globally-relevant technologies addressing a range of problematic and long-standing issues such as:

- PVC Separation Pty Ltd – the world's first recycling technology making it possible for previously non-recyclable products/materials such as vinyl banners and other laminated materials, to be recycled.
- Bygen Pty Ltd - converting agricultural wastes into clean energy and biochar
- Clarity Aquatic Pty Ltd – a technology to cleanup stormwater from built up development areas
- PREP Design Pty Ltd – a software application used by brand owners and packaging designers to assess the recyclability of packaging at the design stage. PREP has been adopted by members of the Australian Packaging Covenant, and several multi-nationals.

In 2018-19 Innovyz was awarded funding of \$750,000 to develop and deliver a second program following a call for experienced organisations to response to the nationally advertised Request for Proposals.

Building on the success of the first program, this second program will emphasise innovative circular economy approaches.

Case studies on the new commercialised technologies and start up entities will be published on the Green Industries SA's website.

Budget

2019-20	2020-21	2021-22
\$197,000	\$28,000*	

*Staff time

COMMERCIALISING INTELLECTUAL PROPERTY FOR EXPORT

Export opportunities and international policies

Internationally, South Australia, through the work of Green Industries SA has established a reputation for leadership in waste management and resource recovery and, more recently, the circular economy. There are opportunities for South Australia's businesses to export their expertise and develop pragmatic solutions that are fit-for-purpose in other jurisdictions.

The state government has prioritised India and China as target markets which are supported by detailed engagement strategies. Green Industries SA is invited to advocate on behalf of South Australia's capability in waste management and resource recovery through in-bound and out-bound trade and investment missions and attendance at key global forums.

The Global Leadership Program on the Circular Economy (see page 12), is providing a springboard to export South Australia's capability in both these, and the Asia-Pacific region.

Budget

2019-20	2020-21	2021-22
\$78,000	\$88,000	\$89,000

STRATEGIES, POLICIES AND NATIONAL ISSUES

Waste strategy and policy (including single-use plastics and food waste strategy)

South Australia's Waste Strategy provides a framework to assist South Australia meet its priorities for economic prosperity and community well-being. Its three objectives are:

- 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; and
- a culture enabling the South Australian community, business and institutions to continue and strengthen their role in implementing zero waste strategies and programs locally, nationally and internationally.

South Australia's next waste strategy for 2020-2025, reflecting emerging issues and new policy directions will be completed in 2019-20.

Green Industries SA will continue to advocate for better and new product stewardship approaches for waste products and materials that will in turn provide market opportunities for South Australian businesses.

It will also support measures for materials banned from landfill under the *Environment Protection (Waste to Resources) Policy 2010* and other relevant waste management regulatory reform measures.

Policy work continues with the agency advocating that business, industry and the community move towards a more circular economy and to target waste 'avoidance'. Projects include supporting new circular and 'purpose economies' which includes social objectives such as moving away from consumption.

Single-use plastic products

The state government's national leadership to consider phasing out unnecessary single-use plastic products such as thicker plastic bags, straws and cutlery and plastic-lined takeaway coffee cups has seen strong community support in response to the release of the *Turning the tide on single-use plastic products Discussion Paper*.

Green Industries SA will undertake analysis to assess the consequences of phasing out single-use products on manufacturers/suppliers and identify strategies to support the *development* of alternatives or replacement manufacturing capability in South Australia. The requirement to identify and maintain a database of alternatives featuring South Australian designed and developed products will be ongoing.

Green Industries SA will also develop single-use plastic free retail precincts in suitable locations where there is a large single-use plastic footprint which provides for a critical mass to replace these items with alternative products which are recyclable and/or compostable and to test the opportunity to reach larger state-wide and potentially Australia- wide scale.

South Australia's food waste strategy

A food waste strategy for South Australia is being developed in response to global, national and state-wide policy imperatives to reduce waste, reduce greenhouse gas emissions and drive change at the industry, local government and community levels.

The strategy includes actions in relation to addressing consumer food waste through policy and legislation, systems and infrastructure and community education. The strategy reflects international and national approaches and practices and the considerable work that has been undertaken in South Australia to date at the commercial and householder levels.

There are significant economic benefits to be gained from food waste avoidance and job creation opportunities associated with capturing and diverting unavoidable food waste away from landfill to processes such as composting. This both supports South Australia's resource recovery efforts and returns valuable nutrients back into horticulture, viticulture and increasingly broad acre farmland.

Concurrently Green Industries SA will continue to support the Fight Food Waste Collaborative Research Centre. It aims to reduce food waste throughout the supply chain, transform unavoidable waste into innovative high-value co-products and engage with industry and consumers to deliver behavioural change.

Budget

2019-20	2020-21	2021-22
\$912,000	\$804,000	\$803,000

KEY OBJECTIVE 2: PROMOTING WASTE MANAGEMENT PRACTICES THAT, AS FAR AS POSSIBLE, ELIMINATE WASTE OR ITS CONSIGNMENT TO LANDFILL

BUSINESS ENABLING

Business Sustainability Program

This program helps businesses understand the transition towards a more circular economy and provides support to make sustainable change.

The program focuses on resource efficiency and better waste management as key drivers that support a more circular economy.

Small-to-medium businesses in the commercial and industrial (C&I) sector are the target audience for this program, along with business and industry groups, or clusters. Larger businesses and those outside of the C&I sector may also seek support for projects that strongly align with Green Industries SA's objectives.

In-house support from Green Industries SA staff, along with grant funding, is offered to guide business and industry towards sustainable change by identifying and prioritising areas for change; developing the business case for change; and helping to boost productivity and performance.

The support and grants offered through this program have been developed following consultation with other government agencies, key industry sector groups and previous clients. Key elements include:

- Support to gain a greater understanding of the potential for cost savings, productivity improvements and improved environmental performance through better resource efficiency (materials, energy, water), waste management, and lean production; and how this relates to a more circular economy.
- Helping business and industry groups take the lead on educating, assisting and promoting sustainable change to their constituents, supporting them to take a 'leap' towards a more circular economy.
- Showcasing environmental achievements by producing case studies to acknowledge industry leaders and exemplar performance in business sustainability program areas.

Grants are available for projects that help drive positive environmental change across industry and business sectors by building a common understanding amongst defined business groups, and which focus on topics such as problematic waste streams, supply chain management, product stewardship, industrial symbiosis, and resource efficiency.

Grants are also available for individual businesses to engage specialist, technical advisers for resource efficiency and productivity assessments which identify and prioritise opportunities for improvements. Additional grant funds are offered for selected implementation activities identified through an assessment. Grants are also available for organisations to engage specialist, technical advisers to identify, prioritise and implement strategies that improve materials efficiency and solid waste management based on waste management hierarchy principles.

Budget

2019-20	2020-21	2021-22
\$615,000	\$638,000	\$694,000

South Australian Government Trade Waste Initiative

This program aimed to help businesses improve the way trade waste (that is, commercial and industrial waste water) is managed (focusing on quality and quantity), reduce operating costs and increase productivity by improving the way materials, energy and water are used. It has targeted South Australian businesses with high trade waste volume and load, specifically the food and beverage industry and is now coming to a close.

Resource Productivity Assessments

Eligible business can apply for a grant to cover up to 50% (to a maximum of \$10,000 GST exclusive) towards the cost of a resource productivity assessment that will identify opportunities to reduce trade waste impacts through efficiency gains and better use of waste, energy, materials and water. Businesses must engage a supplier from the Preferred Supplier List to complete a resource productivity assessment and the assessment can form the basis of a business case for implementation.

Budget

2019-20	2020-21	2021-22
\$5,000	\$0	\$0

Food and Beverage Implementation Grants

Under this program grants were awarded to eligible SA Water trade waste customers in the food and beverage industry to support implementation activities resulting in improvements to trade waste management (reductions in volume and/or improvement to water quality). The expenditure for 2019-20 is for grants awarded during 2016-17–2018-19.

Budget

2019-20	2020-21	2021-22
\$2,281,000	\$25,000*	0

* Staff time

Technical Support and Communications

A qualified trade waste specialist has been appointed to advise businesses on trade waste improvement opportunities and provide technical expertise for enquiries and funding requests.

Budget

2019-20	2020-21	2021-22
\$75,000	\$25,000	0

KNOWLEDGE MANAGEMENT

Waste audits and recycling activities study

Green Industries SA is the custodian of data which measures the state's progress against indicators in *South Australia's Waste Strategy 2015-2020* and relative to other jurisdictions.

Data is also used to guide investment opportunities and evaluate programs and market interventions, for example the results of innovation grants, overseas investment in South Australia or export outcomes from the sector.

Since 2003-04, the agency has reviewed recycling activity in South Australia to guide its activities and to monitor progress against targets in *South Australia's Waste Strategy*.

Data is collected from recyclers and re-processors to provide stream-by-stream and waste type recycling tonnages. Previous surveys have shown a steady increase in recycling.

Survey data collected forms a major part of South Australia's submission to the Australian Government for inclusion in the national report on waste

Budget

2019-20	2020-21	2021-22
\$139,000	\$129,000	\$130,000

Zero Waste Environment User System (ZEUS)

ZEUS is a web-based system developed by Green Industries SA to facilitate the monitoring, analysis and reporting of waste reduction targets in *South Australia's Waste Strategy 2015-2020*. ZEUS collects 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 benefit; infrastructure needs; and areas needing regulatory underpinning.

ZEUS also captures corporate data including contract information, agency publications and industry and stakeholder contacts. Councils can use ZEUS at no cost, with free training provided by the agency.

After 10 years of use, a review is examining the suitability of ZEUS to meet changed business needs and procedures. Initial work during 2019-20 will examine its user interface and adaptability for updated existing and new data capture requirements. An internal working group will guide the redevelopment of ZEUS taking into account staff feedback captured in a series of user-stories.

Budget

2019-20	2020-21	2021-22
\$197,125	\$316,278	\$221,460

HOUSEHOLD HAZARDOUS WASTE

Household hazardous waste and farm chemical collection program

South Australians are provided with a responsible safe collection and disposal service for unwanted chemicals through the Hazardous Waste Depot at Dry Creek.

The facility has been an invaluable service for the South Australian community. Collections are free and open to all householders, with the depot open between 9am and 12 noon on the first Tuesday of every month.

Recognising the need to improve the accessibility and convenience of this service, in 2019-20 new permanent facilities in metropolitan areas will be opened.

The service will include Paintback which provides home painters with an easy option for disposing of unwanted paint and packaging correctly.

The first four facilities to be available from July 2019 will include: Adelaide Waste and Recycling Centre, North Plympton; Northern Adelaide Waste Management Authority, Edinburgh North; Campbelltown City Council works depot, Campbelltown; Resource Recovery Centre, Heathfield.

Mobile events will also be scheduled in consultation with local councils. The Dry Creek depot will be decommissioned in July 2019.

The community will continue to be educated about correct disposal practices for household chemicals and paint, and encourage the recovery and treatment of oils, solvents and other valuable materials for reuse.

Budget

2019-20	2020-21	2021-22
\$1,298,000	\$885,000	\$908,000

BackLight Program

Green Industries SA operates the *Backlight* program with Mitre10, Banner and True Value hardware stores to enable South Australians to recycle all domestic light globes at no cost.

The globes are 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. Since the program was launched in 2010, some 371,024 light globes have been collected, equivalent to almost 38,296 kilograms of light globes being diverted from landfill and responsibly recycled.

Budget

2019-20	2020-21	2021-22
\$72,000	\$72,000	\$72,000

PARTNERSHIPS

Local Government Association of South Australia

Green Industries SA collaborates with the Local Government Association of South Australia to develop a strategic and co-ordinated approach towards regional and metropolitan planning and investment decisions to ensure optimal outcomes for the community.

This approach is underpinned by a Service Level Agreement which has reaped tangible results through a systematic and prioritised approach, for example, towards improving regional waste management planning and operations.

The partnership with the Local Government Association of South Australia supports the implementation of South Australia's Waste Strategy and policy goals for the circular economy by, for example:

- 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*; and
- facilitating local government discussion of key issues relevant to the agency.

Budget

2019-20	2022-21	2021-22
\$36,772	\$37,691	\$38,633

Waste Management and Resource Recovery Association of Australia

The Waste Management and Resource Recovery Association of Australia (WMRR) SA Branch represents and advocates on behalf of its members. This partnership with WMRR provides valuable input into decision-making processes and is a conduit to linking the industry with Green Industries SA. The deliverables under the Service Level Agreement include:

- holding regular events such as breakfast presentations and conferences to improve industry knowledge, expertise and networking opportunities; and
- administering working groups on specific issues and distributing information to members regarding the work program of Green Industries SA and related legislative proposals and industry activities.

Budget

2018-19	2019-20	2020-21
\$41,076	\$41,628	\$42,194

COMMUNITY EDUCATION

KESAB environmental solutions

Keep South Australia Beautiful *environmental solutions* (KESAB) has a valued role as a partner delivering programs to schools and the community on litter measurement, reduction, education and awareness under its three-year Service Level Agreement with Green Industries SA.

The deliverables under this agreement have the purpose of reducing waste in targeted community groups and industry sectors to support *South Australia's Waste Strategy*.

Following a review of the Service Level Agreement, Green Industries SA will enter into a new three-year agreement for 2019-21—2021-22.

Litter data and research and branded litter monitoring

KESAB has been monitoring litter incidence at 151 sites throughout South Australia since 1998, providing the best continuous data set for measuring litter incidence in Australia.

This program helps Green Industries 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 2019-20 KESAB will undertake two counts in May and November and maintain a comprehensive database and trend line of litter streams in South Australia.

Findings from the national review of the annual National Litter Index lead by Green Industries SA in 2018-19 will be implemented in discussion with key stakeholders.

Budget

2019-20	2020-21	2021-22
\$60,000	\$47,150	\$48,329

Wipe Out Waste Schools Education Program and Community Litter Education

The *Wipe Out Waste (WOW) Schools Program* is a whole school community approach to waste management and learning. This state-wide program assists all sites, from pre-school to year 12 to:

- improve systems to reduce waste and recover resources in schools
- monitor progress and continually improve resource recovery (waste) outcomes in the schools
- encourage and influence people to adopt more sustainable behaviour.

The program offers professional development sessions for teachers, bin material audits and a range of education resources to support waste management.

Recommendations from a review of the program in 2018-19 will be progressively introduced, including updated and rebranded resources with the *Which bin* brand, a new website, and reviewing the curriculum-based content.

The *Community Litter Education, Resources and Campaigns Program* is being merged into Wipe Out Waste to enable an improved integration of litter awareness activities, such as the *Litter Less* 'learning through action' program. Additional funding arising from the 2019-20 State Budget will be used to support increased resources to expand the reach of the Wipe Out Waste program⁷.

Budget

2018-19	2019-20	2020-21
\$373,000	\$389,325	\$396,833

Which bin 1300 telephone hotline and website

The *Which Bin* 1300 recycling telephone hotline is operated by KESAB on behalf of Green Industries SA. It provides a responsive and accurate service to the community seeking information on options for recycling a wide range of different materials. KESAB is also responsible for ensuring that the *Which Bin* website is updated at least monthly to reflect changes in council systems, options and legislative and industry changes.

Budget

2019-20	2020-21	2021-22
\$20,000	\$0	\$0

Innovation in Schools Education Program

Green Industries SA will investigate and trial teaching models which offer contemporary approaches towards action learning about waste reduction and recycling education.

A key objective is to ensure that the agency’s investment in school education has a reliable evidence base, remains impactful, is available to public, private and independent schools and reflects contemporary practice.

In discussion with the Department of Education, a trans disciplinary approach which involves STEM and the creative arts will be investigated. STEM is an approach to learning that integrates the areas of science, technology, engineering and mathematics.

Additionally, consideration will be given to the potential for leveraging the state’s specialist entrepreneurial schools to develop a ‘mini’ commercialisation of innovation initiative where students are challenged to solve waste reduction and recycling problems. The program will complement Wipe Out Waste through the trial of activities such as peer-to-peer learning projects and student social media campaign content creation as a learning tool.

Budget

2019-20	2020-21	2021-22
\$74,000	0	0

⁷ Of the \$1.6 million in additional funding for the new Council Transition and Household Education measure, funds have been transferred to support the Household Recycling Education Program: \$150,000 (2019-2020 and 2020-21); and Wipe out Waste and Litter Education program - \$50,000 (2019-2020, 2020-21, 2021-2022).

DISASTER WASTE MANAGEMENT

Disaster Waste Management Capability Plan implementation

Green Industries SA has a new role as the state's Functional Lead for Disaster Waste Management and is responsible for overseeing the implementation the *South Australian Government Disaster Waste Management Capability Plan*.

The agency's extensive and proactive work to integrate disaster management waste planning into broader state emergency plans and arrangements recognises that this is an important enabler which contributes towards strengthening community resilience resulting from natural disasters.

Building on the *Stage 1 Disaster Waste Management Scoping Study*, the agency has now developed the *South Australian Government Disaster Waste Management Capability Plan* and Guidelines. The development of the Plan and Guidelines received funding support under the State Significant Project Category of the Australian Government's Natural Disaster Resilience Program.

Both the Plan and Guidelines were endorsed by the South Australian Government's State Emergency Management Committee. It sits under the authority of the *State Emergency Management Plan* which sets out the state's comprehensive emergency management arrangements.

The Plan specifies the guiding principles and objective for disaster waste management. It also establishes a governance framework throughout the preparedness, response and recovery phases of a disaster.

Data collection, assessment and reporting as well as guiding principles for implementing special initiatives are also included. Most importantly, the Plan specifies the roles, responsibilities and key activities associated with the Plan's Functional Lead and Participating Agencies throughout each of the three emergency phases.

The Guidelines provide guidance for the Functional Lead and Participating Agencies on how to carry out disaster waste management activities throughout each emergency phase.

It includes guidance on key decisions, including identifying the level of state government support provided to disaster waste management stakeholders and comprehensive technical guidance for 19 waste streams.

Budget

2019-20	2020-21	2021-22
\$108,000	\$108,000	\$109,000

Bushfire Waste Management

Green Industries SA is the lead agency for the clean-up and removal of waste following the 2019-20 South Australian bushfires. This will ensure the efficient and safe removal of debris to minimise any risk to public health and safety.

An urgent requirement is the safe management and removal of asbestos, CCA-treated timber ('permapine') and ash and hazardous chemicals such as pesticides, herbicides and fertilisers. Contractors are treating those properties confirmed to contain asbestos and detailed assessments are being undertaken to assess the most effective ways to remove bushfire waste in the affected regions.

The Commonwealth Government and the South Australian Government will co-fund the clean-up of bushfire related waste. The budget for this program will be updated following approval from the Commonwealth Government and Department of Treasury and Finance.

Budget

2019-20	2020-21	2021-22
\$0	\$0	\$0

CORPORATE SUPPORT

Communications, media, marketing and website

Green Industries SA's communications, media and marketing activities target industry, government and the community. The Communications Unit provides expert advice and works closely with program managers to deliver high quality publications, video case studies, social media assets, draft media releases, sponsorships, event management and community and stakeholder engagement activities. A key activity in 2019-20 is a review and redevelopment of the agency's website greenindustries.sa.gov.au

Budget

2019-20	2020-21	2021-22
\$100,000	\$100,000	\$100,000

Board support

Green Industries SA provides policy and administrative support to the Board of Green Industries SA and its two committees - the Governance Committee and Strategic Communications and Engagement Committee. The Board usually meets 10 times a year with additional meetings, including industry site visits, as required. Board members (excluding public servants) receive remuneration. This budget item is for Board meeting operational costs, an annual strategic planning session, training and staff salaries and on-costs allocated to support the Board function.

Budget

2019-20	2020-21	2021-22
\$300,000	\$320,000	\$325,000

Corporate services

This budget item is for the agency's administration support, including work health and safety, rental office lease payments, payroll, insurance, fleet management, telecommunications and purchasing, and management of the Green Industry Fund.

Budget

2019-20	2020-21	2021-22
\$1,121,026	\$1,223,427	\$1,278,588

FUNDING PROVISIONS

Funding for Green Industries 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 Green Industry Fund as set out in the *Green Industries SA Act 2004*. The expenditure authority for the 2019-20 business plan is \$62.655 million.

Department of Treasury and Finance Approved Revenue, Expenditure and Cash balance as at 18 February 2020

Budget Overview	2019-20 (\$)	2020-21 (\$)	2021-22 (\$)
Revenue	44,752,000	50,577,000	51,447,000
50% of waste levy payments from Environment Protection Authority	43,884,000	49,862,000	50,795,000
Interest earned from the Green Industry Fund	830,000	675,000	612,000
Cash rate applied to balance of the Fund (advised by SAFA)	0.63%	0.65%	0.81%
Interest earned from Commercialising Innovation – loan scheme	38,000	40,000	40,000
Currently approved expenditure authority	62,655,000	69,654,000	92,569,000
Green Industries SA expenditure authority	22,451,000	17,533,000	14,895,000
Climate change initiative funding ⁸	40,204,000	52,121,000	77,674,000
Result of Income Statement	-17,903,000	-19,077,000	-41,122,000

Cash balance			
Cash Opening Balance*	131,803,000	111,892,000	92,786,000
Net movement in cash held	-19,911,000	-19,106,000	-41,162,000
Cash Closing Balance	111,892,000	92,786,000	51,624,000

Authority to make variations to the business plan within five per cent of the budget

The Minister for Environment and Water has authorised the Board of Green Industries SA to make variations to this business plan within five per cent of the specified budget. This will ensure that minor changes can be made quickly in response to issues as these arise. The Board will advise the Minister of the details of any variations to the business plan that are made within that five per cent variation limit.

⁸ Intra government transfers for climate change initiatives as determined by the Minister for Environment and Water under the *Green Industries SA Act 2004* independent of the Board of Green Industries SA.

Expenditure

2019-20
(\$)

2020-21
(\$)

2021-22
(\$)

Key objective 1: Promoting innovation and business activity in the waste management, resource recovery and green industry sectors

Infrastructure investment

Infrastructure Grants Program (industry and local government)	7,840,000	4,732,000	3,298,750
Infrastructure Loan Scheme ⁹	0	0	0
Circular Economy Market Development Grants Program	500,000	329,000	315,000
Sub-total	8,340,000	5,061,000	3,613,750

Council Transition and Household Education - State Budget Measure

Local Government Program (food waste)	2,644,000	3,952,000	3,742,200
Council transition and Regional Transport Subsidies	1,827,000	1,822,000	872,000
Household Recycling Education Program	1,036,000	1,055,500	907,012
Sub-total	5,507,000	6,829,500	5,521,212

Circular economy and innovation

Circular economy policy and implementation (including training programs)	501,000	365,000	490,000
Commercialising Innovation Program	197,000	28,000	0
Sub-total	698,000	393,000	490,000

Commercialising Intellectual Property for export

Export opportunities and international engagement	78,000	88,000	89,000
Sub-total	78,000	88,000	89,000

Strategies, policies and national issue

Waste strategy and green industry policy	912,000	804,000	803,000
Sub-total	912,000	804,000	803,000

TOTAL KEY OBJECTIVE 1

15,535,000 13,175,500 10,516,962

Key objective 2: Promoting waste management practices that, as far as possible, eliminate waste or its consignment to landfill

Business enabling

Business sustainability program	615,000	638,000	694,000
Sub-total	615,000	638,000	694,000

South Australian Government Trade Waste Initiative

Resource Productivity Assessments	5,000	0	0
Food and beverage implementation grants	2,281,000	25,000	0
Technical support and communication	75,000	25,000	0
Sub-total	2,361,000	50,000	0

Knowledge management

Waste audits and recycling activity study	139,000	129,000	130,000
Zero Waste Environment User System	197,125	316,278	221,460
Sub-total	336,125	445,278	351,460

Household hazardous waste

Household hazardous waste collections	1,298,000	885,000	908,000
Backlight	72,000	72,000	72,000
Sub-total	1,370,000	957,000	980,000

Partnerships

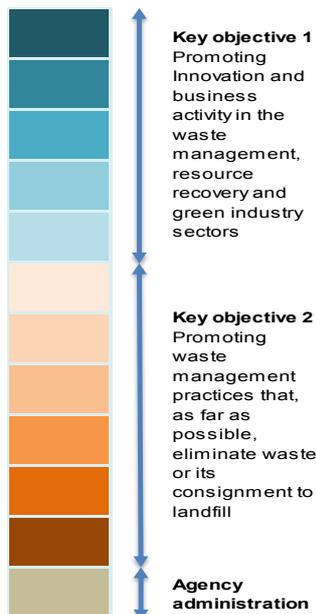
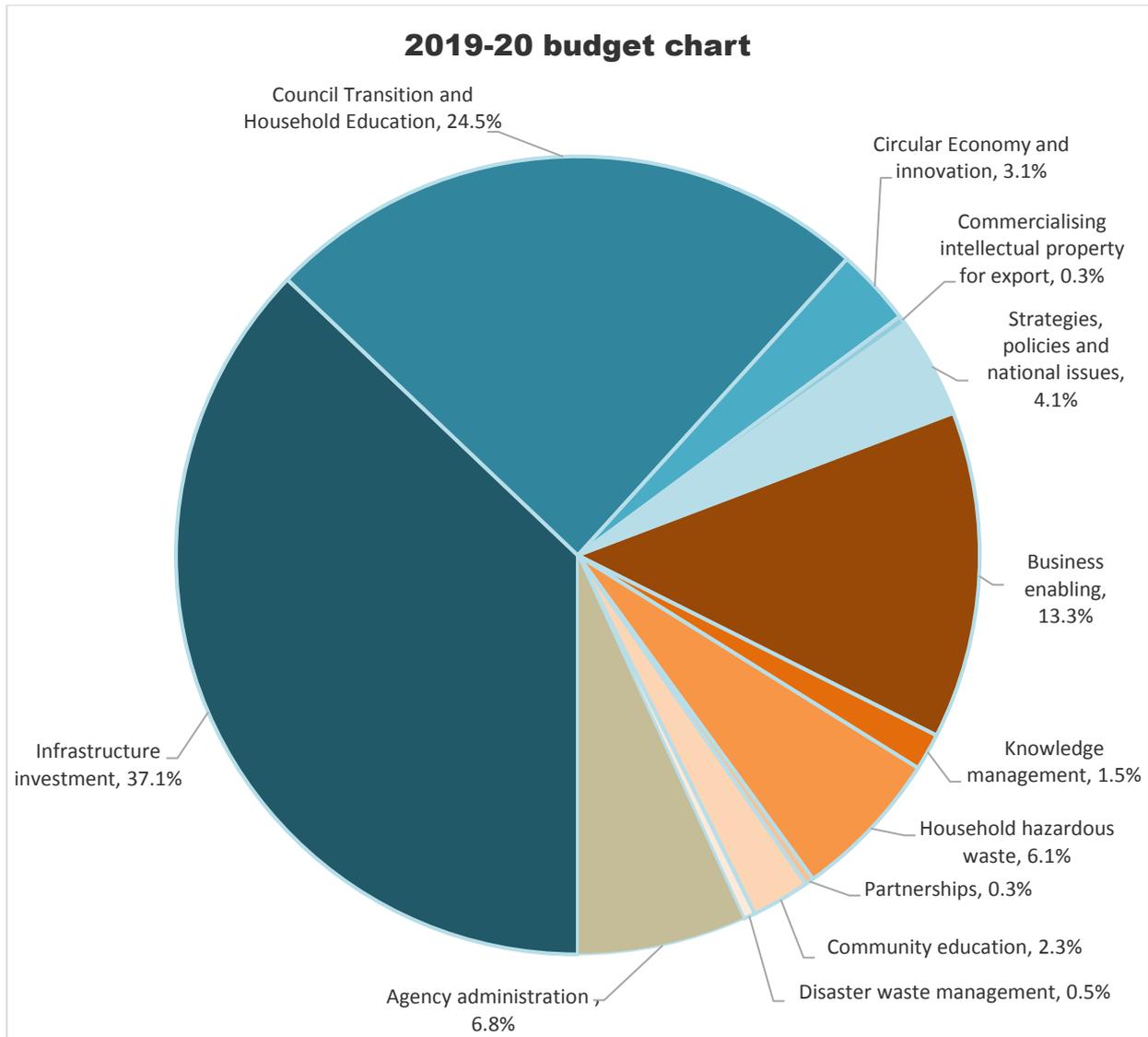
Local Government Association of South Australia	36,772	37,691	38,633
Waste Management and Resource Recovery Association of Australia (SA Branch)	41,076	41,628	42,194
Sub-total	77,848	79,320	80,828

⁹ A loan facility for \$2 million has been established for infrastructure projects and will be recorded on the balance sheet when a loan agreement has been signed.

Expenditure	2019-20 (\$)	2020-21 (\$)	2021-22 (\$)
Community education			
<i>KESAB environmental solutions</i>			
Litter data and research and branded litter monitoring	60,000	47,150	48,329
Which Bin?@1300 information line and website	20,000	0	0
Wipe out waste and community litter education	373,000	389,325	396,833
Sub-total	453,000	436,475	445,162
Innovation in school education program	74,000	0	0
Sub-total	74,000	0	0
Disaster waste management			
Disaster waste management plan and guidelines development	108,000	108,000	109,000
Sub-total	108,000	108,000	109,000
TOTAL KEY OBJECTIVE 2	5,394,973	2,714,073	2,660,450
Corporate support			
Communications, media, marketing and website	100,000	100,000	100,000
Board support	300,000	320,000	325,000
Corporate services	1,121,026	1,223,427	1,292,588
Sub-total	1,521,026	1,643,427	1,717,588
TOTAL CORPORATE SUPPORT	1,521,026	1,643,427	1,717,588
APPROVED EXPENDITURE AUTHORITY¹⁰	22,451,000	17,533,000	14,895,000

¹⁰ Excludes funding for climate change projects.

BUDGET DISTRIBUTION CHART



Note: funding for climate change initiatives is excluded.