

Business Plan 2020-21



Government of South Australia

Green Industries SA

Acknowledgement of country

We acknowledge and respect the Traditional Custodians whose ancestral lands we live and work upon and we pay our respects to their Elders past and present. We acknowledge and respect their deep spiritual connection and the relationship that Aboriginal and Torres Strait Islanders people have to Country.

We also pay our respects to the cultural authority of Aboriginal and Torres Strait Islander people and their nations in South Australia, as well as those across Australia.

CONTENTS

FOREWORD	5
KEY STRATEGIC PRIORITIES AND FUTURE DIRECTIONS	7
KEY OBJECTIVE 1: PROMOTING INNOVATION AND BUSINESS ACTIVITY IN THE WASTE MANAGEMENT, RESOURCE RECOVERY AND GREEN INDUSTRY SECTORS	9
INFRASTRUCTURE INVESTMENT	9
Recycling Infrastructure Grants Program - Industry and Local Government	9
Infrastructure Loan Scheme	9
Circular Economy Market Development Grants Program.....	10
BUSINESS ENABLING	10
Circular Economy Business Support Program	10
Trade Waste Initiative	11
COUNCIL TRANSITION AND HOUSEHOLD EDUCATION	11
Local Government Program (food waste)	12
Council Transition and Regional Transport Subsidies Program.....	12
Household Recycling Education Program.....	12
CIRCULAR ECONOMY AND INNOVATION	13
Measuring the Circular Economy and benchmarking	13
Circular Economy sector analysis and mapping	13
Circular Economy forum.....	14
Circular Economy Global Centre of Excellence	14
Global Leadership Program on the Circular Economy.....	14
Green Industries SA Women in Circular Economy Leadership Award	14
Makerspace.....	15
Commercialising innovation.....	15
KEY OBJECTIVE 2: PROMOTING WASTE MANAGEMENT PRACTICES THAT, AS FAR AS POSSIBLE, ELIMINATE WASTE OR ITS CONSIGNMENT TO LANDFILL	16
STRATEGIES, POLICIES AND NATIONAL ISSUES	16
Waste strategy and policy	16
Single-use plastic products.....	16
South Australia’s food waste strategy.....	17
KNOWLEDGE MANAGEMENT	17
Waste audits and recycling activities study	17
Zero Waste Environment User System (ZEUS)	18
HOUSEHOLD HAZARDOUS WASTE	18
PARTNERSHIPS	19
COMMUNITY EDUCATION	20
KESAB environmental solutions	20
DISASTER WASTE MANAGEMENT	22
Disaster Waste Management Capability Plan implementation	22
CORPORATE SUPPORT	23
Communications, media, marketing and website.....	23
Board support	23

Corporate services	24
FUNDING PROVISIONS.....	25
Department of Treasury and Finance Approved Revenue, Expenditure and Cash balance as at 22 January 2021	25
BUDGET DISTRIBUTION CHART	28

FOREWORD

Green Industries SA's remit is to lead the transition to a circular economy by ensuring resources circulate more within the State's economy through innovation and best practice in resource recovery and remanufacturing.

Through this business plan we are defining and prioritising our approach towards the circular economy – an approach which has increased impetus in response to the impacts of COVID-19.

The business plan has been prepared during an unprecedented time of disruption resulting from the COVID-19 pandemic, with the outlook for the economy uncertain and forecast to slowdown.

With efforts to restart the economy as quickly and safely as possible, functioning in a more circular way is coming to the forefront of thinking.

Organisations are looking to redesign the workforce and build resilience into operations with more efficient and innovative practices.

For Green Industries SA, its advocacy and leadership for the circular economy has an important role in South Australia's economic recovery.

There is heightened awareness of the inherent wastefulness of the current system and the opportunities for repair, reuse and potential for remanufacturing through circular solutions for better economic, social and environmental outcomes.

To drive this momentum for change partnerships are essential to our work – from product design, production and use, and its stewardship to end-of-life.

Contributing to different kinds of collaborations and business models and tapping into new and diverse networks will underpin our work.

Investment in innovation is critical to reinforcing the state's global reputation is a strong theme in many of the agency's activities.

Measures to develop a circular economy in South Australia will continue to emphasise the development of a robust evidence base with high quality data to inform policy and decision making.

We propose to establish a new not-for-profit global centre of excellence in circular economy, led by Green Industries SA, which will bring together expertise from academia, industry and business to stimulate new investment in the state and link stakeholders worldwide.

Two flagship strategies will be released by Green Industries SA in 2020-21 - *South Australia's Waste Strategy 2020-25* and *Valuing our Food Waste*, South Australia's first comprehensive food waste strategy.

South Australia's Waste Strategy 2020-2025 proposes a vision for a circular economy. It aims to continue our efforts to achieve environmental gains while creating jobs and boosting the economy.

New directions are included for food waste and single-use plastics, regulatory waste reforms, education and behaviour change, and, importantly, supporting market development.

Valuing our Food Waste 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.

Food waste is also an area of biggest impact in terms of reducing and diverting household waste from landfill.

The critical imperative to build the resilience, capabilities and competitiveness of the state's waste management and recycling industry remains core to Green Industries SA's business plan.

Key drivers of our work are supporting the state's post-COVID 19 economic recovery, the aftermath of China's National Sword Policy and the national ban on the export of waste plastic, fibre, glass and tyres.

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 remain essential.

Our nation-leading work in the area of disaster waste management in response to the bushfire recovery and clean-up effort will drive better practices locally and nationally.

Our agency's high-performing and dedicated staff led by the Chief Executive must be acknowledged as driving the agency's reputation for leadership, collaboration and results.



Kevin McGuinness
Presiding Member, Board of Green Industries SA

KEY STRATEGIC PRIORITIES AND FUTURE DIRECTIONS

VISION: TO DRIVE THE WORLD'S MOST SUCCESSFUL CIRCULAR ECONOMY, USING A ZERO WASTE MODEL TO INNOVATE, ADAPT AND LEAD

KEY DRIVERS FOR CHANGE

Leadership and advocacy	Policy and regulation	Incentives and support	Innovation and technology	Education, behaviour change, capacity building
Provide leadership through reputation and expertise and advocate for a circular economy	Introduce policy to implement the circular economy through step-wise change and regulation	Provide funding and incentives to grow circular economy in South Australia and support businesses to contribute to economic development	Innovation and technology to underpin the growth in best practice	Transitioning to a circular economy requires education and capacity building across all sectors and the community

KEY STRATEGIC PRIORITY¹

2020-21 BUSINESS PLAN PROGRAM/PAGE REFERENCE

Lead the circular economy		<ul style="list-style-type: none"> Circular Economy Market Development Grants Program 			10
Protecting the environment and boosting economic development by moving away from a take-make-waste linear economy		<ul style="list-style-type: none"> Circular Economy Business Support Program Circular Economy initiatives – measurement, Circular Economy Global Centre of Excellence, Global Leadership Program, Sector analyses, Women's Leadership Award Commercialisation of Innovation Program 			10 14 13-14 14
Support innovative resource recovery		<ul style="list-style-type: none"> Recycling Infrastructure Grants Program (industry and local government) 			9
Build capacity and expertise in innovative waste management and resource recovery to benefit South Australia		<ul style="list-style-type: none"> Loan scheme Circular Economy Market Development Grants Program Commercialisation of Innovation Program 			9 10 14
Reform household and food waste		<ul style="list-style-type: none"> Recycling Infrastructure Grants Program (industry and local government) 			9
Ensuring the best possible approach to managing our waste and resources: reducing and avoiding food waste to save households money, protecting the environment and stimulating industry development		<ul style="list-style-type: none"> Local Government Program (food waste) Council Transition and Regional Subsidies Program, Household recycling education South Australia's Waste Strategy, Food Waste Strategy, Single-use plastics products Household hazardous waste (including BackLight) 			12 12 16-17 19
Reform packaging and single-use items		<ul style="list-style-type: none"> Circular Economy Market Development Grants Program 			10
Reducing the environmental impacts of excess packaging and single-use plastics and encouraging business to develop new alternatives		<ul style="list-style-type: none"> Single-use plastic products and plastic-free precinct trial 			17
Build disaster waste resilience		<ul style="list-style-type: none"> Disaster waste management capability plan implementation 			22
Building community and business resilience to disasters and cleaning up in an efficient and timely manner		<ul style="list-style-type: none"> Busfire waste management 			23

Future Directions

Global climate change and environmental degradation, together with increasing demands for new areas of economic growth, will drive innovation in design, materials, products, business models, consumption and resource recovery.

Policies and actions will also take into account the United Nations Sustainable Development Goals, such as the imperative to conserve resources and reduce pollution integrating with other global targets and goals.

As a result of demands for greater product transparency and increased corporate social responsibility, we can expect mandated extended producer responsibility across multiple items, legislative bans on unnecessary single-use products, reforms in packaging and significant reductions in food waste.

Resource efficiency will increasingly become part of the normal way of doing business along with the community recognising the value of waste as a resource that should be reused and recycled.

Establishing South Australia as a focal point and destination for circular economy policy and practice will drive further innovation, leverage collaborative research, and help identify new jobs and business models.

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.

Green Industries SA will act as a catalyst to stimulate investment and innovation in these new industries.

The proposed Global Centre of Excellence in Circular Economy will attract investment and provide export opportunities for the state's companies.

In brief, we should expect to see a more integrated and holistic approach to problems and solutions, with an increased emphasis on well-being and resilience.

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 benefit from grant funding to enable investment in recycling and re-manufacturing to modernise infrastructure. Improved sorting and processing enhances the quality of recovered materials.

This funding assists with improved competitiveness through improved technology and innovation and creates employment opportunities, and more broadly, reduces waste to landfill. *South Australia's Waste and Resource Recovery Infrastructure Plan* and *South Australia's Waste Strategy 2020-25* have strategic objectives to increase and maintain the capacity of South Australia's recycling systems and reprocessing infrastructure. Continuing and significant investment is needed to enable South Australia to deal with its waste. 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 continue unabated.

With export destinations requiring much lower contamination levels in post-consumer commodities there is even greater emphasis on the need for recycling facilities to improve processes to reduce contamination, and build in resilience and redundancy to ensure high quality material can reach viable end markets.

Commonwealth Government Recycling Modernisation Fund

The Commonwealth and South Australian state government have entered into a National Partnership on Recycling Infrastructure to improve recycling through the Recycling Modernisation fund, targeting plastic, paper, glass and tyres. The Commonwealth and state government are each providing \$15 million from 2020-21 to 2022-23. The Commonwealth's contribution is included in the budget table below.

Budget

2020-21	2021-22	2022-23
\$10,203,000	\$8,306,000	\$10,383,000

Infrastructure Loan Scheme

A loan scheme of \$2 million provides an alternative funding mechanism to fast track infrastructure projects with large capital requirements. Eligible projects should have an immediate effect relating to increasing local remanufacturing and reprocessing of targeted waste streams, including recovered paper, cardboard, plastic and glass.

Budget¹

2020-21	2021-22	2022-23
0	0	0

¹ 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.

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 markets for recycled materials and recycled content products in response to fluctuating international market conditions will increase the resilience of South Australia's local industry and facilitate a more sustainable circular economy business model reducing reliance on selling into overseas commodity markets.

With South Australia's 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 in 2019-20 included a research project to examine the feasibility of developing a lithium-ion battery waste reprocessing and manufacturing industry in South Australia. Lithium-ion batteries are a high-value, emerging waste stream which has the potential to be used to its full capacity.

Another project is a lifecycle analysis and development of an Environmental Product Declaration for an asphalt product containing a high percentage of recycled content materials such as soft plastics, glass, toner and reclaimed road. This will support a product trial on a major South Australian government-funded road upgrade.

Industry collaboration and purchasing by South Australian governments, business, and individuals of recycled materials and recycled-content products will increase demand and market opportunities for new, sustainable products made from recycled materials, stimulating economic development and creating local jobs.

Budget

2020-21	2021-22	2022-23
\$522,000	\$369,000	\$370,000

BUSINESS ENABLING

Circular Economy Business Support Program

Assisting South Australian businesses to improve efficiencies in resource use (materials, energy, water) and better design upfront will enable reduced impacts of waste generation, pollution and environmental harm: in doing so, these businesses will start their transition to a more circular economy.

Support is tailored to the needs of small-to-medium businesses in the commercial and industrial (C&I) sector, along with peak industry bodies (industry associations and business groups).

Large businesses, government organisations, and businesses outside of the C&I sector may also seek support for projects that strongly align with Green Industries SA's objectives.

Advisory services provided by program staff and grant funding is offered to guide business and industry towards sustainable change by identifying and prioritising areas for improvement.

These areas include developing the business case for change; and helping to boost productivity and performance whilst minimising environmental impacts.

The support and grants offered through this program were 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 and circular economy practices through case studies to acknowledge industry leaders and exemplar performance.

Budget

2020-21	2021-22	2022-23
\$706,000	\$723,000	\$807,000

Trade Waste Initiative

This program has assisted businesses with large trade waste outputs (high trade waste volume and/or concentration, or load) to implement better management practices.

It has helped to minimise the impact of trade waste pricing increases and its effect on the environment such as sewer networks and in some cases, land or sea.

The program is largely completed with work in 2020-21 focussing on assisting grant recipients with the delivery of their projects; 28 businesses have benefitted from completing resource productivity assessments and 19 businesses have been provided implementation grants.

Successful initiatives may be documented in case studies.

Budget

2020-21	2021-22	2022-23
\$1,078,000	\$0	\$0

COUNCIL TRANSITION AND HOUSEHOLD EDUCATION

This funding assists 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. Regional communities are assisted with transport costs. Education activities 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.

Local Government Program (food waste)

The single, largest remaining area for improvement in council kerbside systems is food waste, as it comprises over 40% of the weight of household residual waste bins sent to landfill.

The program encourages councils to provide high-performing systems which assist with the diversion of food waste from landfill, the biggest single component of household residual kerbside waste and a way to significantly reduce council landfill costs and greenhouse gas emissions.

Councils receive a subsidy for the cost of bench-top containers, compostable bags and production of householder education material. The *Which Bin* campaign provides state-wide consistent messaging to support improved knowledge and bin behaviour, particularly in relation to ensuring that only certified compostable bags are used and contamination of bins is minimised.

Funding is provided to pilot and evaluate organic waste collection models for high density residential dwellings and food processing and restaurant precincts.

Budget

2020-21	2021-22	2022-23
\$2,054,000	\$1,987,000	\$1,873,000

Council Transition and Regional Transport Subsidies Program

Modernisation and innovation in the local government sector through technology upgrades, can improve household bin services to increase landfill diversion, decrease contamination levels and improve data collection, and improve householder engagement and satisfaction.

High transport costs for recycling in regional areas has long been recognised as a barrier and has been exacerbated by the flow-on effects of the China National Sword policy and low international market prices for high quality recyclable materials.

Transport subsidies to regional councils addresses this barrier and supports their continued recycling efforts by offsetting some of the extra costs associated with processing and transporting collected recyclables. Regional councils also benefit from a reduced waste levy.

Budget

2020-21	2021-22	2022-23
\$2,265,000	\$910,000	\$1,011,000

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.

The *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 2020-21 this suite will be continue to be expanded.

In response to COVID-19 social isolation measures, 'remote learning' and virtual tours of recycling and waste infrastructure for use by waste educators and householders will continue to be developed.

Engaging with local government will continue as the *Which Bin* campaign is further developed, investing in branded and easy to understand household resources to support awareness and behaviour change.

Market research will examine the efficiency of the brand and messaging to influence knowledge and behaviour change. Research will also be undertaken to examine world's best practice in behaviour change programs to ensure methodologies for communications and education remain impactful and value for money.

Budget

2020-21	2021-22	2022-23
\$1,205,000	\$1,041,000	\$1,045,000

CIRCULAR ECONOMY AND INNOVATION

Green Industries SA will continue to lead circular economy policy development and practical implementation during 2020-21.

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 a product's life.

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

Measuring the Circular Economy and benchmarking

A critical project for advancing the circular economy is developing robust methods to measure the circular economy and identify areas for increased investment.

This is a global challenge that has largely eluded others to date. With a sound methodology Green Industries SA will be aiming to benchmark and track the state's performance in transitioning to a circular economy.

Circular Economy sector analysis and mapping

Different product and industry sectors are being analysed to build knowledge about the circularity in terms of the flow of resources. The agency's analysis of the organics sector is expected to provide learnings which can be applied to other sectors. Future sectors for analysis are likely to include textiles, plastics and electronics.

A mapping project will identify different groups, sectors and interests, the economic and materials flows, supply chains, and opportunities for collaboration across sectors and within sectors.

Circular Economy forum

A forum will be convened by Green Industries SA targeting key sectors (e.g. local government) to initiate engagement and drive the development of a whole-of-government commitment and holistic state-based approach towards the development of the circular economy in South Australia.

Circular Economy Global Centre of Excellence

Building on the achievements of the *Global Leadership Program on the Circular Economy* the feasibility of establishing a new not-for-profit entity will be examined to expand the program's impact.

This initiative recognises the considerable interest from international organisations in partnering with Green Industries SA to advance practical policy responses to the opportunities inherent in the circular economy.

The centre will aim to accelerate adoption of the circular economy by: advancing circular economy theory and science, including circular economy metrics; linking stakeholders worldwide; providing thought leadership and educational resources to build capacity; supporting innovation through research, development and commercialisation; and supporting high impact circular economy projects, through advocacy and funding to demonstrate whole of supply chain outcomes that are truly circular.

Through the agency's stewardship it will leverage funding from the public and private sector to establish the desired global and local partnerships for the benefit of the State Government's economic development goals.

This will allow investments and partnerships from local, national and international partners. A university partner(s) will be sought to provide an accredited certificate such as a Graduate Certificate in Circular Economy.

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

Global Leadership Program on the Circular Economy

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. Two subsequent programs were successfully delivered, the last being in February 2020.

The content of the program will be migrated to online modules to allow greater flexibility in the delivery of the program and other forms of education from the proposed Centre for Circular Economy Leadership.

Green Industries SA Women in Circular Economy Leadership Award

The Women in Circular Economy Leadership Award provides an opportunity for a South Australian woman who is an emerging or established leader working in the area of the circular economy to pursue an investigative project of a kind that is not readily available in South Australia.

The Award has evolved from a scholarship established in 2010 in memory of Pam Keating. She was a member of the Board of Zero Waste SA when she died in a car accident in Victoria in 2009.

Award recipients have undertaken research projects relating to: local government reform of kerbside collection services, international and national developments in household food waste recycling, and measures to reduce textile waste using circular economy approaches. Award winners are profiled on the Green Industries SA website at <https://www.greenindustries.sa.gov.au/women-in-CE-leadership-award>.

Makerspace

A Service Level Agreement with SA Makers will enable the delivery of a circular economy training program, recognising Makerspace Adelaide's role in supporting the agency's strategic priorities for transitioning South Australia to a circular economy. Makerspaces can contribute to a circular economy by reducing resource consumption through shared access to equipment, along with the potential for expanding this more widely into the community through tool libraries, as well as opportunities for reusing and repairing/fixing things through initiatives such as repair cafes. Digital fabrication techniques used in these spaces support waste avoidance by enabling more precision in the use of materials.

Budget

2020-21	2021-22	2022-23
\$1,290,000	\$1,062,000	\$1,067,000

Commercialising innovation

The *Commercialising Innovation Program* stimulates 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.

In 2016-17 GISA entered into its first agreement with Innovyz for the Waste and Recycling Technologies Commercialisation of Innovation Program. It is funded through a five-year loan (with matched funding) of \$750,000 and due for repayment in September 2021. Six entities were established through this program (see <https://www.greenindustries.sa.gov.au/innovation>).

In 2018-19 Innovyz was awarded repayable funding of \$750,000 (matched) to deliver a second program following a nationally advertised Request for Proposals. This program emphasises innovative circular economy approaches to address pressing environmental issues.

Researchers participating in the program will undertake training to commercialise innovations as follows:

- Cost effective sustainable carbon fibre 3D printing
- Environmentally superior aluminium ion cell-based batteries to replace lithium ion batteries
- Zero waste modular plywood building system to be piloted in South Australia
- A cheaper and more flexible alternative to silicon cells using perovskite solar cells
- Water-activated cold plasma process to prevent food waste.

Budget (*staff time)

2020-21	2021-22	2022-23
\$33,000*	\$7,000*	\$500,000

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

STRATEGIES, POLICIES AND NATIONAL ISSUES

Waste strategy and policy

South Australia's Waste Strategy 2020-2025 provides a framework to assist South Australia meet its priorities for economic prosperity and community well-being. A transition to the circular economy is a priority for the 2020-2025 Waste Strategy through:

- a clearly articulated policy and legislative framework that gives a solid platform for investment decisions and a stable and efficient market
- supporting innovation and commercialization
- education, advocacy and awareness to support behaviour change in the way waste and resources are managed
- applying the waste management hierarchy consistently with the principles of ecologically sustainable development.

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 measures for materials such as glass, tyres, paper and cardboard and plastics banned from overseas export following a decision of the Coalition of Australian Governments in March 2020.

An implementation plan for the National Waste Policy agreed by state, territory and federal environment ministers will also be progressed.

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 objectives such as moving away from consumption.

Single-use plastic products

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

On 6 July 2019, the Minister for Environment and Water released the *Turning the tide on single-use plastic products – Approach and next steps document*.

Since that announcement, a taskforce of business, industry, local government and interest group stakeholders was formed, a plastic-free precinct pilot program was launched, and the *Single-use and Other Plastic Products (Waste Avoidance) Bill* was released for public consultation and was passed by Parliament on 19 September 2020.

Educational resources for the community and business will be developed by Green Industries SA, in consultation with stakeholders. These will be implemented in the lead-up to commencement and during implementation of the legislation. Green Industries SA will continue to support and expand the plastic-free precinct pilot program in suitable locations with relevant industry and business participants.

South Australia’s food waste strategy

A food waste strategy for South Australia has been 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 sent to landfill 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 projects. 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

2020-21	2021-22	2022-23
\$1,064,000	\$1,013,000	\$1,020,000

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* 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

2020-21	2021-22	2022-23
\$167,000	\$178,000	\$180,000

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*.

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 in 2019-20 examined the suitability of ZEUS to meet changed business needs and procedures.

As a result, work will continue to develop a new system with improved adaptability for updated existing and new data capture requirements. An internal working group is guiding the redevelopment of ZEUS taking into account staff feedback.

Budget

2020-21	2021-22	2022-23
\$128,278	\$183,460	\$116,672

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 four new permanent facilities commissioned in metropolitan Adelaide in 2019-20.

The service includes Paintback which provides households and commercial painters with an easy option for disposing of unwanted architectural paint and packaging correctly.

The new facilities include: Adelaide Waste and Recycling Centre, North Plympton; Northern Adelaide Waste Management Authority, Edinburgh North; Campbelltown City Council works depot, Campbelltown; Adelaide Hills Region Waste Management Authority Resource Recovery Centre, Heathfield.

The community continues 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

2020-21	2021-22	2022-23
\$855,000	\$877,000	\$925,000

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.

Since the program was launched in 2010, some 462,417 light globes have been collected, equivalent to 50,252 kilograms of light globes being diverted from landfill and responsibly recycled.

Glass, metal, plastic, phosphor and mercury extracted from the light globes are all recycled in end markets. 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. The volume of recovered materials is as follows:

Budget

2020-21	2021-22	2022-23
\$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 waste management and resource recovery in regional and metropolitan planning and investment decisions to ensure optimal outcomes for the community.

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

2020-21	2021-22	2022-23
\$37,691	\$38,633	\$39,599

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 issues which impact on the sector's operations. 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, conferences and webinars 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

2020-21	2021-22	2022-23
\$32,628	\$33,194	\$33,774

COMMUNITY EDUCATION

KESAB environmental solutions

Keep South Australia Beautiful *environmental solutions* (KESAB) delivers 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*. Green Industries SA has entered 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 2020-21 KESAB will undertake two counts in May and November and maintain a comprehensive database and trend line of litter streams in South Australia.

Following a national review of the annual National Litter Index in 2018-19 a new methodology for the conduct and analysis of litter surveys will be considered in 2020-21. The objective is to have a methodology in place which will be used by all Australian jurisdictions.

Budget

2020-21	2021-22	2022-23
\$73,150	\$48,329	\$49,537

Wipe Out Waste Schools Education Program and Community Litter Education

Wipe Out Waste (WOW) 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. In response to COVID-19 social isolation measures KESAB will be developing new on-line teaching resources.

The *Community Litter Education, Resources and Campaigns Program* has been merged into Wipe Out Waste to enable better integration of litter awareness activities, such as the *Litter Less* 'learning through action' program.

Budget

2020-21	2021-22	2022-23
\$389,325	\$357,833	\$365,529

Which Bin 1300 telephone hotline

The *Which Bin* 1300 recycling telephone hotline provides a service to the community seeking information on options for recycling a wide range of different materials.

Budget

2020-21	2021-22	2022-23
\$20,500	\$21,012	\$21,540

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 contributing to stronger community resilience in the face of increased 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 in 2019. 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.

This project will revise the *South Australian Government Disaster Waste Management Capability Plan* and look to improving the State’s preparedness and resilience to future disasters.

Budget

2020-21	2021-22	2022-23
\$150,000	\$258,000	\$260,000

Disaster Waste Management

Green Industries SA has been the lead agency for the clean-up and removal of waste following the 2019-20 South Australian bushfires.

This has ensured the efficient and safe removal of debris to minimise any risk to public health and safety.

Specialist contractors managed the safe remove asbestos, CCA-treated timber (permapine) and ash and hazardous chemicals such as pesticides, herbicides and fertilisers. Other contractors have assisted with arrangements to collect and/or drop-off materials such as fencing wire, burnt fence posts, water tanks, poly-pipe and plastic irrigation hose and drip lines.

Local suppliers are used where possible to ensure economic benefit for the region. Green Industries SA ensured residents were kept updated of progress with the clean-up of their properties and published a weekly schedule to indicate progress.

The clean-up will continue into 2020-2021 and it is expected that Green Industries SA will be asked to lead the clean-up of waste arising from another disaster.

The Australian Government and the South Australian Government are co-funding the clean-up of bushfire related waste. The budget below also consists of removal of disaster green waste and vegetation, including felled trees.

Budget

2020-21	2021-22	2022-23
\$9,704,000	\$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 and social media assets. It identifies opportunities for media announcements and manages sponsorships and community and stakeholder engagement activities aligned with the agency's core objectives. A new corporate website for the agency will be finalised in early 2020-21.

Budget

2020-21	2021-22	2022-23
\$131,000	\$81,000	\$81,000

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

2020-21	2021-22	2022-23
\$368,000	\$290,000	\$299,000

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

2020-21	2021-22	2022-23
\$1,218,427	\$1,429,539	\$1,145,349

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 2020-21 business plan is \$85.888 million.

Department of Treasury and Finance Approved Revenue, Expenditure and Cash balance as at 22 January 2021

	2020-21 (\$)	2021-22 (\$)	2022-23 (\$)
Revenue	62,399,000	56,075,000	59,058,000
50% of waste levy payments from Environment Protection Authority	49,570,000	50,498,000	51,412,000
Revenue from the Commonwealth and State Governments for bushfire clean-up	9,475,000	0	0
National Partnership on Recycling Infrastructure - funding from the Commonwealth Government	3,000,000	5,000,000	7,000,000
Transfer from DIT to GISA for Adelaide Hills Tree Clean-up Work	150,000		
Transfer of interest and principal repayments from SAFA to GISA for the Recycling Infrastructure Loan Program	65,000	65,000	305,000
Interest earned from the Green Industry Fund	99,000	472,000	341,000
Cash rate applied to balance of the Fund (advised by SAFA)	0.10%	0.81%	1.18%
Interest earned from Commercialising Innovation – loan scheme	40,000	40,000	0
Currently approved expenditure authority	85,888,000	96,959,000	53,714,000
GISA expenditure authority	33,767,000	19,285,000	21,665,000
Climate change initiative funding	52,121,000	77,674,000	32,049,000
Result of Income Statement	(23,489,000)	(40,884,000)	5,344,000
Cash balance			
Cash Opening Balance	114,122,000	88,604,000	47,680,000
Net movement in cash held	(25,518,000)	(40,924,000)	5,232,000
Cash Closing Balance	88,604,000	47,680,000	52,912,000

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.

Expenditure

2020-21
(\$)

2021-22
(\$)

2022-23
(\$)

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)	10,203,000	8,306,000	10,383,000
Infrastructure Loan Scheme	0	0	0
Circular Economy Market Development Grants Program	522,000	369,000	370,000
Sub-total	10,725,000	8,675,000	10,753,000

Business enabling

Circular Economy Business Support Program	706,000	723,000	807,000
Trade Waste Initiative	1,078,000	0	0
Sub-total	1,784,000	723,000	807,000

Council Transition and Household Education - State Budget Measure

Local Government Program (food waste)	2,054,000	1,987,000	1,873,000
Council Transition and Regional Transport Subsidies Program	2,265,000	910,000	1,011,000
Household Recycling Education Program	1,205,000	1,041,000	1,045,000
Sub-total	5,524,000	3,938,000	3,929,000

Circular economy and innovation

Circular Economy Policy And Implementation	1,290,000	1,062,000	1,067,000
Commercialising Innovation Program	33,000	7,000	500,000
Sub-total	1,323,000	1,069,000	1,567,000

TOTAL KEY OBJECTIVE 1

19,356,000 14,405,000 17,056,000

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

Strategies, policies and national issues

Waste Strategy and Policy (including Single-use plastic products and South Australia's food waste strategy)	1,064,000	1,013,000	1,020,000
Sub-total	1,064,000	1,013,000	1,020,000

Knowledge management

Waste Audits And Recycling Activity Study	167,000	178,000	180,000
Zero Waste Environment User System	128,278	183,460	116,672
Sub-total	295,278	361,460	296,672

Household hazardous waste

Household Hazardous Waste Collections	855,000	877,000	925,000
Backlight	72,000	72,000	72,000
Sub-total	927,000	949,000	997,000

Partnerships

Local Government Association of South Australia	37,691	38,633	39,599
Waste Management and Resource Recovery Association of Australia (SA Branch)	32,628	33,194	33,774
Sub-total	70,320	71,827	73,373

Community education

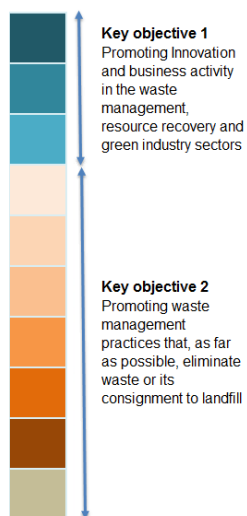
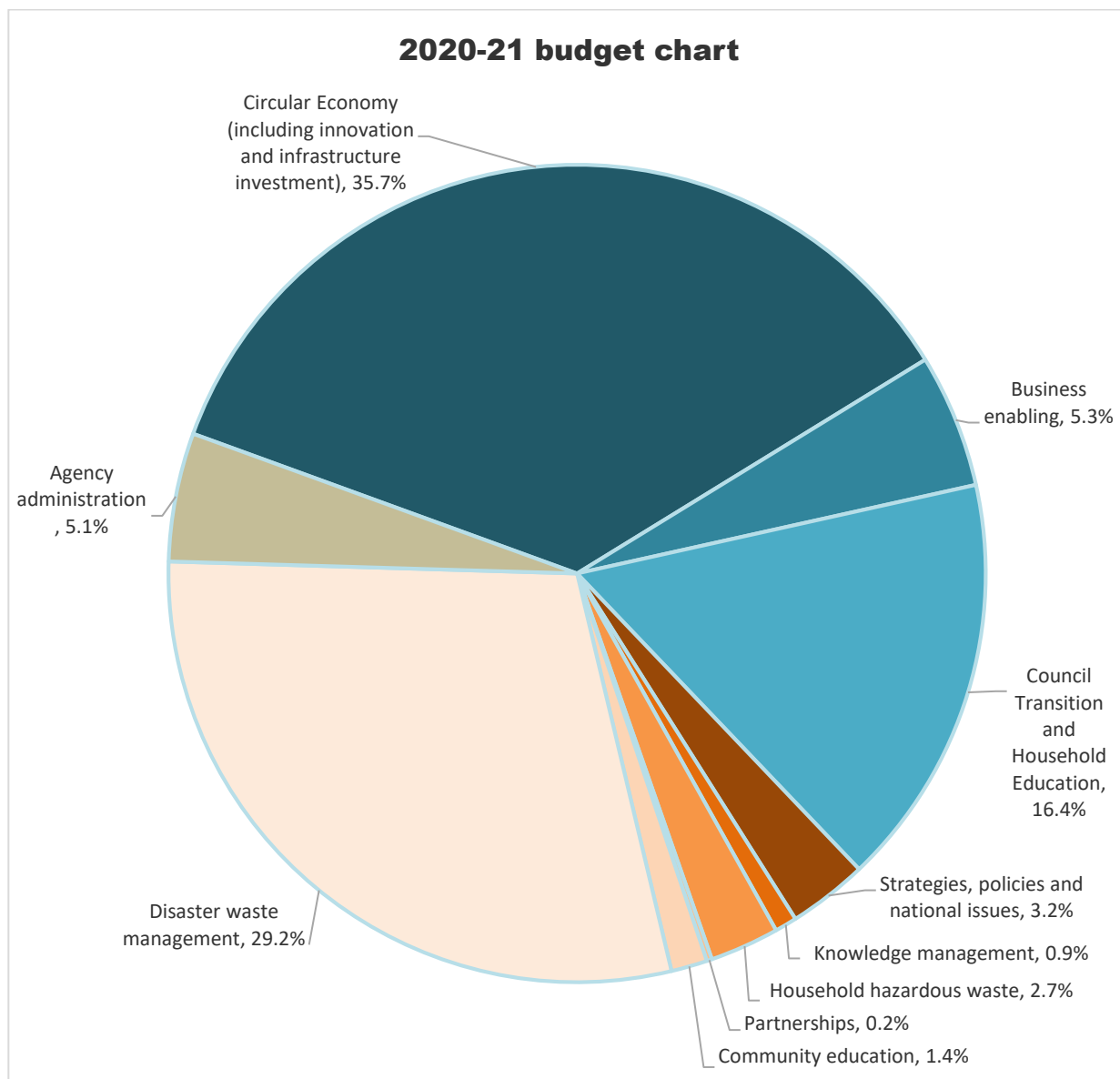
KESAB environmental solutions

Litter Data And Research and Branded Litter Monitoring	73,150	48,329	49,537
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Expenditure	2020-21 (\$)	2021-22 (\$)	2022-23 (\$)
Which Bin?® 1300 information line and website	20,500	21,012	21,540
Wipe Out Waste And Community Litter Education	389,325	357,833	365,529
Sub-total	482,975	427,174	436,606
Disaster waste management			
Disaster Waste Management Capability Plan Implementation	150,000	258,000	260,000
Bushfire Waste Management	9,704,000	0	0
Sub-total	9,854,000	258,000	260,000
Corporate support			
Communications, Media, Marketing And Website	131,000	81,000	81,000
Board Support	368,000	289,000	299,000
Corporate Services	1,218,427	1,429,539	1,145,349
Sub-total	1,717,427	1,799,539	1,525,349
TOTAL KEY OBJECTIVE 2	14,411,000	4,880,000	4,609,000
APPROVED EXPENDITURE AUTHORITY²	33,767,000	19,285,000	21,665,000

² Excludes funding for climate change projects.

BUDGET DISTRIBUTION CHART



Note: funding for climate change initiatives is excluded.