



South Australia



Good for
Environment
Good for
Business
Volume 7

Foreword



The Environment Protection Authority is South Australia's independent environmental regulator. Our role is to protect, restore and improve the environment, and safeguard the health and wellbeing of the community by authorising and regulating activities that may have an environmental impact, carrying out monitoring, and enforcing environmental legislation.

The EPA licenses more than 1500 South Australian businesses, institutions and agencies under the *Environment Protection Act 1993*. This takes in private enterprise as well as government bodies, and covers activities from winemaking and curing meat, to mining and the transport and processing of waste.

All licensees are required to meet their environmental obligations through efficient and effective practices, and we ensure that we support them to continually develop and adopt cleaner, more sustainable production technologies.

The EPA is also committed to unlocking the state's future potential, including creating jobs and encouraging innovation through modern regulatory and policy approaches. It is important to us that we not only protect the environment, but that we also provide certainty, fairness and the opportunity for innovation for the sectors we regulate.

It is encouraging to learn of the innovative practices our licensees are developing and implementing, and we are proud to present an annual snapshot of them in this publication, *Good for Environment, Good for Business*. These are just some of the many South Australian organisations that are leading the way by putting in place creative solutions that result in outcomes that strongly benefit their local communities.

This year's special regional edition showcases two private enterprises – timber producer OneFortyOne and grain processors Blue Lake Milling – and two councils: Alexandrina Council and Northern Areas Council. All four organisations have made it a priority to find ways to remedy long-standing issues for the betterment of their communities and the environment, and we are pleased to recognise and share their stories.

Tony Circelli
Chief Executive
Environment Protection Authority



Jubilee Highway Timber Mill

Mount Gambier's Jubilee Highway Timber Mill had struggled with air pollution issues for many years, but when new owners OneFortyOne took over in January 2018, they immediately set about solving the problem.

Jubilee Highway Timber Mill is South Australia's largest, covering 65 hectares and processing more than 750,000 m³ of timber a year.

It began operation in the late 1950s and was originally owned by the State Government, before being sold to private enterprise.

Air pollution was an ongoing issue, with the problem stemming from the two 20-megawatt wood-fired boilers that produced heat and steam for the mill's drying kilns.

The EPA had worked with the previous owners to try to solve the problem, placing an Environment Improvement Program (EIP) on the mill's licence as far back as 2009.

In early 2017, forestry and timber products company OneFortyOne, which now has sites in Australia and New Zealand and employs 500 people, began negotiations to buy the mill.

When the EPA became aware of the impending sale, staff immediately began discussions with the company about the requirement to improve air emissions at the mill, culminating in an updated EIP in September 2017.

OneFortyOne Executive General Manager Australia, Cameron MacDonald, said from the first meeting with the EPA, they were committed to undertaking the necessary work for the mill to comply with air quality requirements.

"Meeting our environmental obligations was something we wanted to do as quickly as possible, because we are committed not only to being environmentally sustainable, but also to investing in the communities where we operate," he said.

"This was the first significant project we completed after taking over the Jubilee Highway mill, and it represents a \$4 million investment."

The company carried out the design, fabrication and preparations throughout 2018, doing much of the work in-house with a dedicated specialist team before installing new filtration systems in the stacks during the 2018-19 Christmas shutdown.

The new systems use the latest cyclonic technology to capture the fine particles from the emissions leaving the boilers.

With 40 small cyclones, it uses higher velocities to capture more of the fine ash than the mill's old three-cyclone system.

Monitoring now shows stack concentrations of particulates have been cut by more than 60 per cent, and are less than 100mg per m³.



\$4M invested to reduce air pollution



Pollution cut by **60%**



Jamestown wastewater reuse

Instead of allowing excess water from the Jamestown treatment plant to evaporate and be lost, Northern Areas Council has joined with the local Apex Club to turn that water into high-value crops to benefit the community.

Three years ago, Northern Areas Council was facing the prospect of spending more than \$200,000 to line the third evaporation pond that received water from its Jamestown treatment plant, which services about 500 homes.

Council Manager, Operational Services, Peter Porch, said they also had the additional challenge of overflows from the pond, which would not be solved by lining.

“The pond could overflow occasionally in times of high rainfall, and we agreed with the EPA to solve that problem, entering into an Environment Improvement Program (EIP),” Mr Porch said.

“We were already piping water from the treatment works to irrigate the town oval, so when the Jamestown Apex Club suggested a similar arrangement for the field they cultivate, we saw the potential to make use of an untapped resource while also resolving the overflow issue.”

The Apex Club has been cultivating the 12-hectare, council-owned field for many years, selling the resulting crops to fund community projects.

Club Cropping Manager Brett Simpson said in the past, they had chosen crops that could grow with available rainfall, like wheat, barley and canola, and had so far raised between \$6,000 and \$8,000 a year.

“We really wanted to switch to a crop with a higher value like lucerne, but to do that, we needed to be able to irrigate,” he said.

The pipeline to the oval passed close by the field, so council set up a spur line, and now about 400 kilolitres of treated wastewater is being delivered to the field three days a week via pivot irrigation.

The lucerne was planted in October 2018, but its growth rate was slowed due to low rainfall and the unusually hot summer.

“Lucerne has deep roots and will eventually access the groundwater,” Mr Simpson said.

“We’ve already had one cut so far, and once it’s established we can expect one to four cuts a year, depending on the season, each worth about \$13,000.

“There’s also the harvesting of seed, which could be worth up to another \$25,000, dependant on the market.

“If everything goes well, that could mean up to \$70,000 more every year for projects like assisting our sporting clubs and supporting locals who have had life-changing accidents or illnesses.”



Better wastewater management



More funds for the community





Goolwa Waste and Recycling Depot

The former Goolwa landfill has provided waste disposal and recycling services to the Fleurieu Peninsula community for 35 years, but the site has recently undergone an amazing transformation.

After an extensive planning process and 18 months of construction, Alexandrina Council was able to open the gates to its new EPA-licensed waste and recycling depot on 1 July 2018.

The old landfill was capped and rehabilitated to EPA landfill guidelines, and site upgrades carried out including new internal roads to improve access, an expanded waste transfer shed, and a new administration building housing an office, gatehouse and weighbridge.

The upgraded depot is home to the Fleurieu Regional Waste Authority (FRWA), which manages kerbside collections and operates transfer stations across the entire Fleurieu region.

Alexandrina Council, the City of Victor Harbor, District Council of Yankalilla and Kangaroo Island Council combined their waste resources to form the FRWA in 2010.

The FRWA depot redevelopment includes a new mechanical workshop that enables it to service and repair its fleet of kerbside collection trucks onsite.

Residents can also drop in to buy wheelie bins and spare parts, worm farms, compost bins and benchtop caddies for kitchen scraps, or visit the 'Trash to Treasure' corner where items that are suitable for re-use are offered for free.

The depot's composting facility turns green waste into pasteurised mulch, and there is also machinery to crush inert construction and demolition waste into road base. Both of these products are available for sale to the community.

Two privately operated recycling businesses, South Coast Recycling and Goolwa Salvage and Save, are also based at the depot, making it a one-stop shop for the Fleurieu's recycling needs.

Alexandrina Council Chief Executive Glenn Rappenberg said the changes were driven in part by the need for more undercover handling space and improved traffic control.

"Also in the past, parts of the worksite would flood during wet weather, but we have been able to solve that issue by installing a central stormwater retention basin," he said.

"Council takes a holistic approach to waste and recycling. For example, we were the first council in the state to cut general waste collections from weekly to fortnightly, and that has been a major factor in reducing waste going to landfill and improving kerbside recycling.

"The new depot has added to that, and we are confident it will be able to service the region's needs for many years to come."



A one-stop shop for recycling



Improved stormwater management



Blue Lake Milling

A \$500,000 site upgrade has solved an ongoing noise issue at Blue Lake Milling's Bordertown site.

Originally based in Mount Gambier, Blue Lake Milling moved its oat milling business to Bordertown in 1981 to be in the heart of south-eastern Australia's grain-growing region.

The mill can operate up to 24 hours a day, five days a week, and uses fans, blowers, grain-handling equipment, and milling machinery, all of which are inherently noisy.

As the operation grew, so did nearby residents' concerns, and in 2014, the EPA put an Environment Improvement Program (EIP) on the mill's licence, requiring a reduction in noise levels.

When Co-operative Bulk Handling Ltd (CBH) acquired Blue Lake Milling in 2015, it emphasised the importance of successfully executing the EIP and supported the ideas of reducing noise through planning improvements.

Blue Lake Milling Work Health Safety Coordinator Quentin Ashfield said they had invested \$500,000 in a suite of noise reduction measures at the mill.

"One of the biggest-ticket items was an 8m noise barrier fence around the large hulling filtration system, including sound-absorbing panels," he said.

"We extended the enclosure around the incoming grain receiving pit to accommodate B-double trailers, as well as improving the filtration system to keep noise and dust levels to a minimum during unloading.

"Other improvements included a site fence to contain noise, dust and litter, sound-absorbing material around the roof extension, new fans and silencers, and the removal of a diesel generator."

On top of the equipment upgrades, after-hours operating procedures were altered. Now grain transfer takes place only between 7am and 10pm, and most outside forklift activities are completed during daylight hours.

Mr Ashfield said they completed the works required under the EIP in January 2019, with monitoring showing they were almost fully compliant with noise requirements.

"There was still a tonal component remaining, but we were committed to finding out the cause and to rectifying it," he said.

"It turned out there was one last piece of equipment that needed further attenuation. We're pleased to say that we are now fully compliant with EPA noise requirements.

"The mill is part of the community, and it's important to us to have a good relationship with our neighbours.

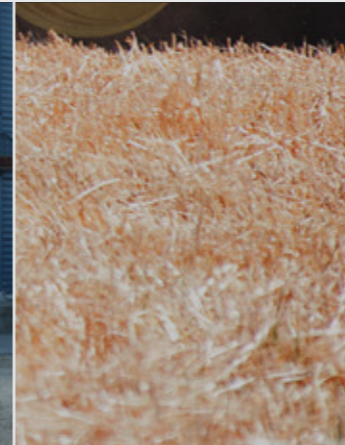
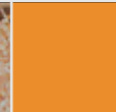
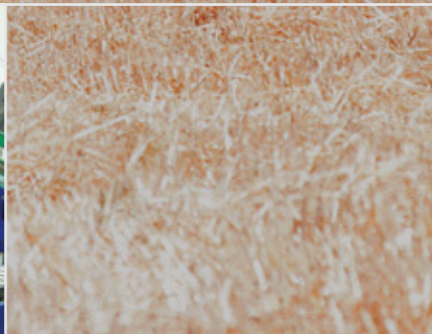
"A sustainable enterprise doesn't regard social and environmental objectives as costs – it seeks opportunities to achieve better outcomes."



\$500,000
investment in
noise reduction



Noisy activities
only carried out
during the day





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