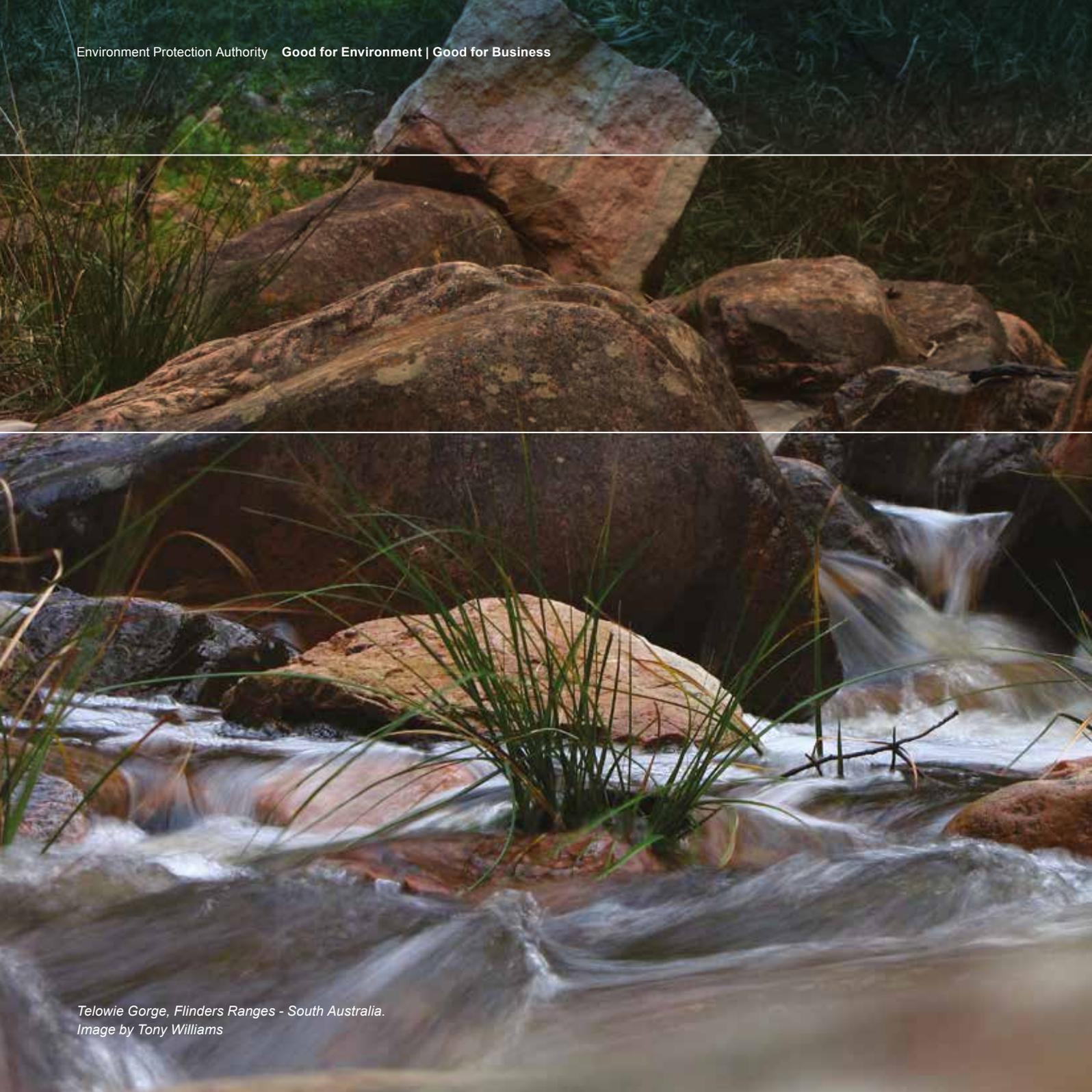




South Australia



Good for
Environment
Good for
Business
Volume IV



*Telowie Gorge, Flinders Ranges - South Australia.
Image by Tony Williams*



Introduction



The Environment Protection Authority (EPA) is South Australia's primary environmental regulator. Its role is to protect, restore and improve the environment and safeguard people's health and wellbeing by authorising and regulating activities of environmental significance, monitoring the environment and enforcing environmental legislation.

We are committed to unlocking future potential, including job creation, and encouraging innovation amongst our regulated community through modern regulatory and policy approaches that provide for enhanced certainty, fairness and invention together with a healthy environment.

The EPA licenses around 1500 businesses across South Australia under the *Environment Protection Act 1993* covering a range of industries including cement manufacturing, wastewater treatment, abattoirs and wineries. We require all licensees to meet their environmental obligations through efficient and effective practices, while also ensuring we support them to continually develop and adopt cleaner production and technologies that enables innovation at the lowest cost.

Each year we are encouraged to learn of innovative practices that are implemented by a range of sectors across South Australia. We are proud to present this year's *Good for Environment Good for Business* booklet. We have included a snapshot of business and industry in regional and metropolitan South Australia that are leading the way in implementing innovative solutions for environmentally friendly outcomes and are working with the EPA to deliver on a more sustainable future.



Tony Circelli
Chief Executive
Environment Protection Authority



Effective dust extraction systems

reduction of noise emissions



Hard Sealed Site
100% stormwater is captured and recycled



Premix Concrete S.A.

A family-owned business based in Salisbury South on the outskirts of Adelaide's CBD, Premix Concrete S.A. has been supporting South Australian construction for the past 27 years.

The business has expanded from its humble beginnings where it operated with one truck from its Salisbury yard. It now owns a fleet of more than 30 concrete vehicles, a cement tanker, three tipper trucks and a laboratory, with additional sites at Galwer and Lonsdale.

In 2017 the company was given development approval to undertake an extensive development of its Salisbury South site to improve and increase the concrete batching business.

EPA's Senior Environment Protection Officer Sharon Finney says the major works has resulted in an exceptionally well managed and operated site with significantly reduced environmental impact.

"The site has been fully hard sealed and all stormwater is captured and recycled in the process," Ms Finney said.

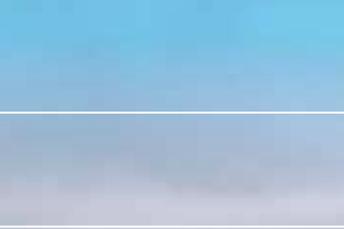
"Although considerably larger than the previous operation, the design and management of the site is particularly good.

"Effective dust extraction systems are in place and the design of the cement filling system is particularly impressive with no cement or aggregate dust visible during or after truck filling.

"There has been a considerable reduction of noise emissions from on-site truck movements outside the property and the wash-down areas are well maintained due to the good housekeeping practices in place.

"These aspects have been incorporated in to Premix Concrete S.A.'s Environment Management Plan which promotes a greater focus on environmental processes.

"The site is considered a very good example of a clean and well run concrete batching plant," she said.



Main image: Premix Concrete S.A. Salisbury South site.

1. New slump stand.
2. New batch plant.
3. Former site.



investments in
innovative
production
and management



Regular preventative
maintenance + inspections
of the plant = **reduced**
environmental impact.



JT Johnson and Sons

JT Johnson & Sons, a fourth generation family owned stockfeed company based at Kapunda near South Australia's Barossa Valley region, continues to focus on innovative technology and practices to minimise environmental impacts.

Established almost 100 years ago the company produces a range of stockfeed products including hay bales and stock pellets for domestic and international markets. Around 25 tonnes of stockfeed is produced every hour at the new facility.

JT Johnson & Sons rapidly expanded its business over the past few decades and commissioned its first pellet production mill in 1976. Its investments in innovative production during its long history has resulted in more tailored products being made to meet specific customer requirements on and off-shore.

These updated practices have also resulted in more innovative ways to manage onsite operations with increased raw material storage capacity, testing every hour, auto batching technology and on line management to better identify areas of improvement in efficiency.

The Environment Protection Authority (EPA) licences the Kapunda facility and recognises the recent improvements made on site to reduce environmental nuisance.

EPA Compliance Team Leader Shaun Thomas says this is a high volume production facility and the EPA acknowledges the company's proactive approach to implementing these beneficial changes.

"We have worked closely with JT Johnson & Sons over the years as part of our role as the environmental regulator to provide guidance and support in improving environmental management.

"The facility has recently undergone a \$20 million upgrade which includes improvements to its grain delivery, pellet processing, pellet loading and banded areas.

"Regular (daily) preventative maintenance schedules and inspections of the plant are carried out to ensure equipment operates effectively.

"We have seen a substantial reduction in dust from the site since these upgrades were completed which has benefits for local residents and the environment," Mr Thomas said.

JT Johnson and Sons General Manager Andrew Hayward said: "During the recent upgrade of our facilities, we worked closely with Ahrens and LGPM to achieve the best Environmental results for all involved. We are very aware of our location in the town and we accept the obligation we have to Kapunda residents and the environment in general. Increased storage, better roads and sealed internal roads have allowed us to reduce truck movements whilst increasing production.

"A fully enclosed B Double grid with dust extraction allows for loads to be delivered dust free which is a great result.

"We have a good working relationship with the EPA and look forward to working on new innovative ways to improve our performance in the longer term," Mr Hayward said.

Main image: Bales of oaten hay, compacted and cut for domestic and international customer orders.

1. Outloading pellet silos at the upgraded JT Johnson & Sons pellet plant at Kapunda.
2. Tipper truck emptying it's load of grain at the pellet mill ingredients enclosed receival area.
3. Third generation former Managing Director, now Board Member Denis Johnson with sons Robbie and Mark at the newly built grain silos used to store raw materials for the pellet mill.



2.



Proposed Wastewater Treatment Plant

approx **400** megalitres of wastewater

treated for use in agricultural irrigation.



composting trial blended

1,500 tonnes of winery waste

500 tonnes of mature compost



material will assist in

- > water savings
- > improving soil quality
- > supressing weeds, pests & diseases





Berri Estates Winery - Accolade Wines

Set in the small scenic Riverland town of Glossop in South Australia, Berri Estates Winery – the largest grape processor in the region – is making way for innovative and sustainable operations that will benefit the local community and environment.

Part of the multi-national wine company Accolade Wines, Berri Estates Winery crushes around 200,000 tonnes of grapes annually – around a third of South Australia's crush.

With over 200 permanent on-site staff, the estate includes a state-of-the-art manufacturing facility that produces more than 90 million litres of wine annually, including 55 million litres of cask wine.

The Environment Protection Authority's (EPA) Senior Environment Protection Officer Justin Richardson, says this is large scale production and the company's emphasis on innovative environmental management practices is extremely positive.

"In late 2017, Berri Estates Winery began a composting trial that blended 1500 tonnes of winery waste with 500 tonnes of mature compost supplied by a composting facility. The blended compost is now being offered to local growers," Mr Richardson said.

Berri Estates Winery Operations Manager Travis Haeft said: "The trial has been a great success and presents an excellent opportunity for the winery and the region by converting a winery by-product into a valuable agricultural asset."

"From an environmental perspective, the composted material will deliver greater efficiencies to local agriculture businesses. The use of this material will assist in water savings, improving the nutrient quality of the soil in addition to assisting the suppression of weeds, pests and diseases," added Mr Haeft.

In addition to this project, the winery is currently investigating upgrading its Wastewater Treatment Plant (WWTP). The proposal will see about 400 megalitres of wastewater treated to a standard capable of being used for agricultural irrigation.

The WWTP project will be a significant investment for the business, creating local employment and supporting the sustainability of the site into the future.

"Berri Estates Winery is proud to be a part of the Riverland community and we seek to continually improve our environmental and sustainability performance to ensure prosperity for our region and future generations." Mr Haeft said.

Main image: Berri Estates state-of-the-art manufacturing facility.

1. Berri Estates compost windrows.
2. Proposed Wastewater Treatment Plant will see about 400 megalitres of wastewater treated for use in agricultural irrigation.



Storing

50000 tonnes

with best available environmental control technologies



implemented control measures on site to **minimise dust**



Company invested in **environmentally sustainable practices**





Incitec Pivot Fertilisers



With a history of more than 100 years of making, storing and distributing fertiliser in South Australia, Incitec Pivot Fertilisers has recently taken operation of its new \$25 million storage and distribution centre in Port Adelaide.

The 17,000sqm Adelaide Primary Distribution Centre site at Ocean Steamers Road in Port Adelaide features state-of-the-art facilities for storing 50 000 tonnes of fertilisers with the best available environmental control technologies.

The new facility is being used to store and load fertiliser into trucks for distribution to agricultural customers. It is expected that 160,000 tonnes of fertiliser will move through the facility each year.

EPA Compliance Team Leader David Vaughan says the engineering design and management approach is considered best practice within the State.



“Incitec Pivot has implemented control measures on site to minimise dust from the fertiliser loading and unloading, storage and blending facilities. This ensures that the impacts on any adjacent sensitive receivers, water in the River or other facilities in the Port Adelaide River Industrial Precinct are minimised,” he said.

“All fuels, chemicals and hazardous goods used at the site are stored within designated areas that limit the potential for their escape into the surrounding environment.

“Any servicing of vehicles or equipment is also undertaken in the designated wash and maintenance bay. All hazardous wastes, such as waste oil, oil filters and hydraulic fluids generated during the service, are removed from site to a licensed facility.

“The investment made in this facility demonstrates Incitec Pivot’s commitment to ensuring environmentally sustainable practices,” Mr Vaughan said.

IPF Interim President Jamie Crough, said: “The company is conscious of the environment in which we operate and we are demonstrating that not only through the investment in our new product distribution centre but also through product innovation.

“We are constantly looking to innovate in ways that enable us to care for the community and the environment,” Mr Crough added.



Main image: Nutrient fed crop fields.

1. New Incitec Pivot \$25 million storage and distribution centre in Port Adelaide.
 2. Field Day in Dookie. Crop Inspection.
 3. Nutrient research to improve farming and environmental outcomes.
- 



1.



implemented practices to minimise environmental nuisance



sealing of the log yard & truck access roads = minimised dust from premises

building insulation + earth mounds around site perimeter = Significant



noise reduction



3.



NF McDonnell & Sons

NF McDonnell and Sons operates a sawmilling business in Mount Gambier in the State's South East and have done so on the same site since 1956.

In the past 10 years the company has expanded its business capacity considerably from processing approximately 90,000T each year to currently almost 400,000T, establishing major domestic and international markets for its products.

The expansion has included a dramatic boost in efficiency and outputs.

The Environment Protection Authority (EPA) Manager Regional Delivery & Operations Planning Naomi Grey, says growth has resulted in the modernised and improved processes and the reduction of environmental impact.

"As a regulator it is important to work closely with our licensees to ensure that environmental concerns are effectively addressed.

"NF McDonnell & Sons has demonstrated its commitment to managing operations in an environmentally responsible manner and to minimise impact from its activities and we are pleased that they have implemented practices to minimise environmental nuisance.

"NF McDonnell & Sons have undertaken a number of actions, with one of the significant improvements being the sealing of the log yard and truck and loader access roads which has minimised the dust out of the premises," she said.

The installation of a HewSaw 250 and additional equipment has enabled the business to produce an additional 300,000 tonne of small diameter logs each year.

"With this installation and increased production there have been several improvements to ensure that noise mitigation measures are in place. This includes insulation in building walls, and earth mounds around the perimeter of the site to reduce noise," she said.

The business has also developed a noise management plan which includes twice weekly monitoring of six sites around the mill as well as changes to transport movements.

"These changes have considerably reduced mobile plant noise during the day and night and the site complies with the EPA's Environmental Protection (Noise) Policy," Ms Grey said.

Main image: Log yard and main mill.

1. Main mill out feed.
2. HewSaw operator control desk.
3. Log grab.





we encourage
**Significant
Improvements**

through environmental
initiatives and
sustainable practices



EPA licenses
approx **1,500**
businesses
in South Australia



The Environment Protection Authority

Good for
Environment
Good for
Business

setting environmental standards
leads to innovative practices...

◀ reduction of **odour emissions** such as **wastewater systems** reuse of ▶

97% of South Australia's
businesses are
small business

Rewarding and recognising
leading sustainable
practice to encourage

innovation 

Photos courtesy of:

NF McDonnell & Sons
Berri Estates Winery - Accolade Wines
JT Johnson & Sons
Incitec Pivot Fertilisers
Premix Concrete S.A.



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