

2017-18 South Australian Water Corporation **Annual Report**

FOR THE YEAR ENDING 30 JUNE 2018



Government of
South Australia



SA Water



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Letter of Transmittal

28 September 2018

The Honourable David Speirs
Minister for Environment and Water

Dear Minister

On behalf of the Board of SA Water, I am pleased to present the Corporation's Annual Report for the financial year ending 30 June 2018.

The report is submitted for your information and presentation to Parliament, in accordance with requirements of the *Public Corporations Act 1993* and the *Public Sector Act 2009*.

This report is verified as accurate for the purposes of annual reporting to the Parliament of South Australia.

Yours sincerely



Andrew Fletcher AO
Chair of the Board



Contents

A message from the outgoing Chair	6	Financial Performance	49
A message from the incoming Chair	7	Financial performance summary	49
A message from the Chief Executive	8	Consultants	49
About SA Water	11	Supplementary Reporting Items	50
Our vision	11	Fraud	50
Our values	11	Strategies implemented to control and prevent fraud	50
Our organisation	11	Whistleblowers disclosure	50
		Summary of complaints	50
Our Strategy	13	Operations four year comparison data table 2014-18	50
		Ministerial direction	51
Year in Review	14	Appendices	53
Getting the basics right every time	14	Audited financial statements	54
Working together	21	Drinking water quality data	120
Leading the way	27		
Capable and committed team	36		
Keeping it simple	38		
Water quality	40		
Effective Governance	46		
Legislation	46		
Key regulators	46		
The Board	46		
Directors' interests and benefits	46		
Board committees	46		
Organisation structure	47		

A message from the outgoing Chair



Providing essential services to more than 1.7 million people living across the length and breadth of the driest state in the driest continent is not without its challenges. SA Water is meeting these challenges on a daily basis, achieving the rigorous requirements of providing safe, clean drinking water and reliable sewerage services. I am particularly proud that this work has continued to be extended this past year to include more remote Aboriginal communities.

The Corporation has a clear vision and strategy with an increasingly customer-centric workforce that is adapting to meet the ever-evolving needs and expectations of its residential, small business, commercial and industry customers. The organisation is achieving this by maintaining a clear focus on improving services through getting the basics right and concentrating on those delivery aspects that matter most in contemporary South Australia.

This adaptive approach draws on 160 years of innovating to provide safe, clean water and reliable sewerage services to South Australians. This responsibility drives the Board and everyone who works at SA Water to strive to be the service provider of choice for customers, with an eye on continuous improvement. Further, the importance of world class services to the economic growth of South Australia is well understood with demonstrable actions being taken to grow prosperity.

Throughout 2017-18 the Board has been impressed by the positive energy and initiative that is building on the foundations set in the previous financial year. There are many highlights; the vast majority being customer service improvements, simplifying processes to create efficiencies, and an increasing and exciting use of relevant technology that is leading the way.

This progressive work has been recognised during the year across industry, with multiple awards received. SA Water won *Digital Utility of the Year* (jointly with Horizon Power), the *Water Industry Alliance Innovation Award* for its laboratory DNA testing technology, *Best Municipal Internet of Things (IoT) Project* and *Australian IoT Project of the Year* for the city of Adelaide smart water network. These achievements highlight the significant work underway in the business for the benefit of all South Australians.

In 2017-18, SA Water again worked with its economic regulator, the Essential Services Commission of South Australia, to meet customer service performance standards and its 2016-2020 Regulatory Business Proposal commitments. The Corporation also actively sought customer input into the next proposal through the Water Talks program with more than 5 000 people sharing what they value and want prioritised in the delivery of their water services.

The Corporation continued to work together with the Department of Health and Wellbeing and the Environment Protection Authority, and met public health and environmental standards and expectations.

Safety for everybody; in every job every day for all SA Water people, and the customers and wider communities it serves, remains the first priority. The Board continues to champion safety outcome improvements and empower all within the business to actively contribute to, and model, positive and effective workplace behaviours and practices.

The Board is proud of what the Corporation has achieved this financial year. I take this opportunity to wish the incoming Chair continued success as he works together with the leadership and wider team to grow the business through the provision of ever reliable and high quality services.

Carolyn Pickles
Outgoing Chair of the Board

A message from the incoming Chair



Water is the foundation of all life and so a critical element for prosperity. Maintaining public health with reliable and efficient sewerage services is likewise a key part of enabling a better life.

I acknowledge the work of the former Chair and directors in guiding SA Water in its achievements to date. I look forward to building on this work and leading the Corporation into continued and even greater success.

As we look ahead to 2018-19, our continued adoption of technology to support greater service reliability will be an important part of enabling continued efficient work practices to provide real benefits for customers.

Meeting customers' evolving and varied needs and expectations – be that reliable services in metropolitan Adelaide, regional and remote communities, or enabling business growth and industry expansion – is central to sustainable business growth. This necessitates greater focus and effort on delivering beyond the expectation of today to tomorrow.

When addressing challenges, many of which are industry wide, new thinking will be the hallmark to leading the way and achieving long term success for the Corporation in the coming years.

As Chair, I look forward to working with the Board of directors as we lead the direction of the Corporation, oversee the financial performance and ensure legislated and regulated requirements are met. We will do this by working together with the Senior Leadership Team to deliver for the more than 1.7 million people invested in our collective corporate success.



Andrew Fletcher AO
Chair of the Board

A message from the Chief Executive



During 2017-18 we have made great progress towards our vision of providing world class water services for a better life.

Our vision, strategy and values are becoming continually embedded in our business with our people focused on delivering for our customers every day.

Customers at the heart of everything we do

In line with our customer-first philosophy, we undertook a significant public engagement program to ensure the people we serve had the opportunity to shape the future of water services delivered in South Australia.

Our Water Talks program included face-to-face engagement activities and an online survey which more than 5 000 people completed. This was an important opportunity for our customers from across the state to have real input to the issues to be prioritised as we plan for 2020-24. It was pleasing to see the high level of interest and engagement from customers, with so many people taking the time to have their say about what they value from us.

The digital capabilities we offer customers have increased with improved online service options, to ensure we're responding to our customers' varied expectations. This has seen the introduction of an easy-to-navigate online map where customers can see all temporary service interruptions at a glance, featured prominently on our website. And our improved dedicated service continuity approach makes us best placed for quicker response to operational issues and customer needs.

Digital utility

Our digital service options accelerated in 2017-18 with the implementation of a completely new online account management service *mySAWater* for residential customers, our pioneering work on the science of smart water networks, and technology enabling better flexibility to support our more agile and mobile workforce.

Our Adelaide CBD smart water network, in which we proudly partner with Adelaide University and industry experts, is leading the global water industry in the management of network demand, leaks and water quality.

Inclusion and diversity

Another area of significant progress is our leading work on reconciliation. With a Reconciliation Action Plan designed to stretch activity through to 2020, we made a great start, completing 47 per cent of actions in the first year. All our people were involved through a training program to develop their knowledge in cultural issues and bring these topics to the forefront. This program received excellent feedback, as did a range of activities held during NAIDOC week. I am also very proud of the outcomes that were delivered, which support the United Nations Sustainable Development Goals, through collaborative work together with Aboriginal communities.

In late 2017 we assumed responsibility for the water supply services in four remote communities increasing the number of remote communities we supply drinking water to 21. We are now working with these four additional communities to improve their water services by investing in infrastructure, water quality treatment and education.

With much progress made, we are well placed to continue delivering on our commitments and become a reconciliation leader.

Gender equity is a social justice issue that impacts men, women and their families. We pay fairly and gender does not enter the equation. I am proud of our work underway to ensure we reflect the diversity of the community we serve.

With our customers at the heart of everything we do, we are fostering diversity of thought to find better ways of working to provide the services valued and expected. The roll out of our culture program in late 2017 has supported a positive shift towards a more constructive and collaborative workplace, with our people encouraged to challenge the way we work in order to improve the services we provide.

Business performance

The safety and wellbeing of our people underpins our performance. This year we made an impact on musculoskeletal health. Our program to build the capacity of our people to adopt improved work postures and positioning resulted in a 48 per cent reduction in musculoskeletal injuries across our workforce. We are empowering our people to lead their own safety so everyone is taking responsibility for this critical issue.

Work to review and simplify processes is benefiting our customers and their experience with us. Keeping things simple is an important way for us to grow our customer-focus as well as be consistent and efficient. It also builds on our culture change and innovation programs.

In March 2018 the Bureau of Meteorology released their *National performance report 2016-17: urban water utilities* which analyses the performance of 85 organisations across Australia, including SA Water.

This independent report confirmed the rate of water main breaks and leaks within our network as one of the lowest in Australia, despite having the longest network in the country. This result indicates we are minimising the interruption and inconvenience for our customers and commuters.

Creating a better life

Our work to create a better life contributes to the future of South Australia. Through the Northern Adelaide Irrigation Scheme, announced in late 2017, we will strengthen development of our state's important agribusiness sector, delivering 12 gigalitres of high quality recycled water to the Adelaide plains, helping to create 3 700 jobs and boost the state's economy by more than \$500 million. A new water treatment facility at the Bolivar Wastewater Treatment Plant will increase production of recycled irrigation water by 60 per cent to support this development. Projects like this show how central water services are to future development and growth.

Looking ahead, a cross-government taskforce has been formed to progress the future plans of opening reservoirs to the public. While our management of these sites will evolve to ensure continual quality and security of drinking water supplies, opening these special locations for everyone to enjoy will grow our ability to provide a better life for South Australians and our visitors.

As we farewell Carolyn Pickles from our Board, I thank her for her significant contribution and steady guidance as both a Director for five years, as well as Chair for 12 months. I look forward to working with Andrew Fletcher as Chair of the Board and directors as we continue to deliver world class water services for our customers.



Roch Cheroux
Chief Executive



About SA Water

Our vision

World class water services
for a better life.

Our values

Together we deliver safely and stand accountable, genuine and innovative every day.

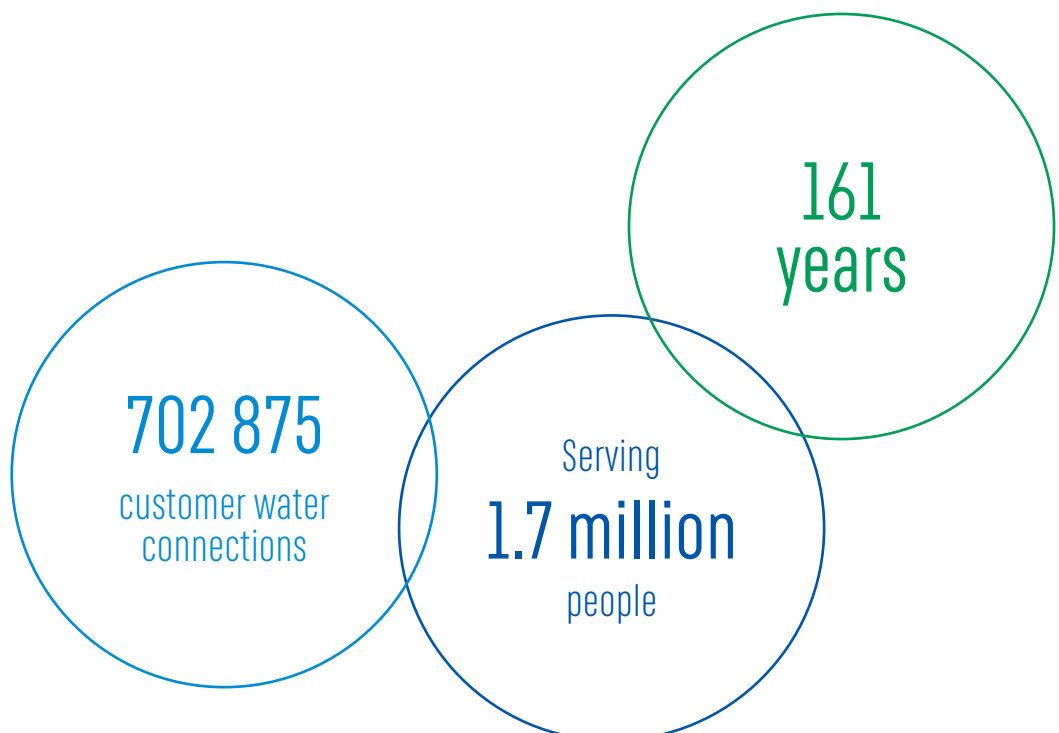
Our organisation

We are South Australia's leading provider of water and sewerage services for more than 1.7 million people. For more than 160 years we have been working together with South Australians to ensure a reliable supply of safe, clean water and a dependable sewerage system. We are committed to ensuring our services represent excellent value.

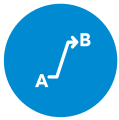
As a statutory corporation reporting to an independent Board, we are included in the portfolio of the Minister for Environment and Water.

We also work closely with a number of state government agencies including:

- Department of Premier and Cabinet
- Department of Treasury and Finance
- Department for Environment and Water
- SA Health
- Environment Protection Authority.







Our Strategy



The world and our customers shape everything we do, and they are constantly changing and evolving, so we monitor global megatrends and explore the impact they may have on us and our customers, now and into the future. By anticipating future directions, we are best placed to deliver our vision of world class water services for a better life.

Our strategy sets our path as we work towards this vision, guiding the decisions we make each day. We listen to our customers to understand what matters to them, and include this insight in our strategic goals, outlined below.

Getting the basics right every time

Customers expect us to get the basics right: the safety and availability of quality drinking water and dependability of sewerage services. We are responsive when things go wrong, fix faults quickly and meet our regulated responsibilities. Customers expect our prices to be low and stable.

Working together

As a team, our productive, respectful relationships with our customers, regulators and stakeholders are key to delivering services our customers value. Understanding and supporting our customers is vital.

Leading the way

We are leaders nationally and globally to give our customers confidence that we are innovating to achieve outcomes for them. We support the South Australian community and economy.

Capable and committed team

Our experienced and capable team consistently lives our values with actions and behaviours to safely deliver for our customers every day. Our people are valued brand ambassadors.

Keeping it simple

Simple, easy, customer friendly processes are important to create value for our customers.

Supporting the Sustainable Development Goals

In 2015, the United Nations General Assembly adopted 17 Sustainable Development Goals (SDGs). These goals are part of a global development blueprint through to 2030. They are universal, transcend borders and apply across the workplace, marketplace and community. They seek to reduce poverty, inequality, unrest and environmental stress around the world.

We are a signatory to the Australian water industry's commitment to support the SDGs as a plan of action for people, planet and prosperity. We are doing our part to achieve these goals as we get on with the job of delivering world class water services for a better life.

Year in Review

GETTING THE BASICS RIGHT EVERY TIME

Customers expect us to get the basics right: providing safe quality drinking water, and dependable sewerage services.

We have the longest supply network of pipes of any Australian utility, with more than 27 000 kilometres of water mains. In 2017-18 we moved to ensure we fixed the majority of faults quickly and met our legislated responsibilities.

Delivering on customer expectations while keeping prices as low and stable as possible underpins all we do.

Smart water network improves customer experience

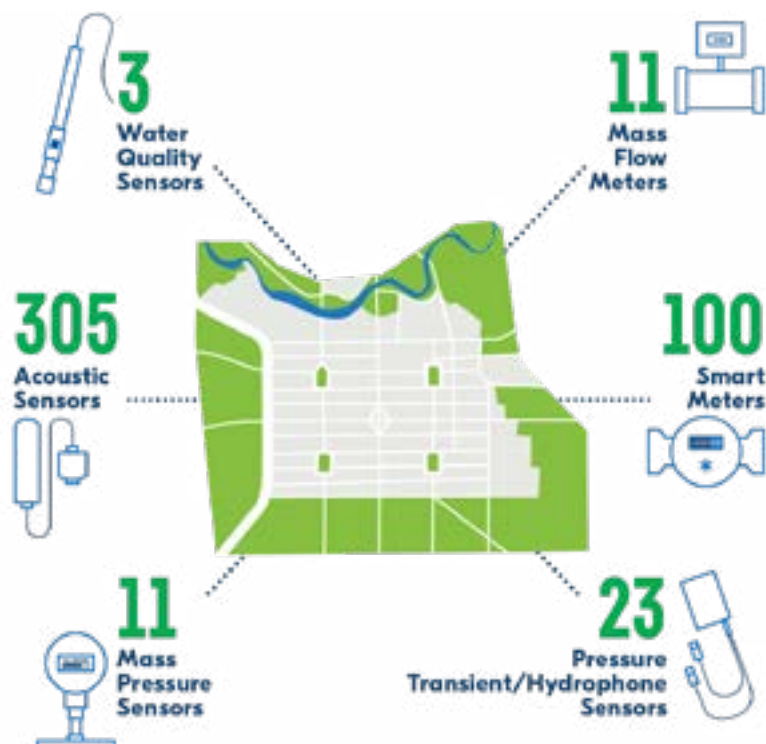
Improving the management of our water network supports four United Nations Sustainable Development Goals ensuring we provide:

1. clean water and sanitation
2. industry, innovation and infrastructure and develop:
3. sustainable cities and communities
4. responsible consumption and production.

The smart water network in Adelaide's central business district (CBD) provided significant water savings and service improvements for many of these customers. During 2017-18, we set a benchmark for the water industry by adopting and integrating smart technology on a broad scale to benefit customers by managing the water network in a new way, minimising service disruptions.

Our CBD smart water network has delivered on its objectives to:

- **Enable wise investment.** We now have a comprehensive understanding of the CBD water network, enabling the right infrastructure investment choices at the right time.
- **Reduce customer impact.** Data captured provides information to detect leaks as they arise, enabling pre-emptive repairs reducing temporary water supply interruptions for our customers and commuter delays. In 2017-18, the smart water network resulted in more than 15 leaks or faults proactively repaired before they became water main breaks.





- **Improve customer satisfaction.** The smart water network provides real-time network performance information. Smart water meters empower businesses to better manage their water use and address issues before they cause bill spikes or damage to their property, resulting in smooth and more cost-effective business operations. At present, 70 of the CBD's largest water customers have smart meters, with this number set to increase as the technology is rolled out more widely.
- **Improve economic growth and liveability.** Data collected provides improved information about both capacity and performance of the network. With new information daily, we can make better informed decisions enabling more accurate support for business growth and new CBD developments.

New technology supporting our people in the field

Our Work Order App for field teams is enabling a continued shift away from a paper-based work system, to receive and therefore respond to field jobs faster. Following an initial rollout last financial year, the Work Order App was introduced to a further 150 network staff servicing metropolitan Adelaide plus our Community Support, and Production and Treatment teams. We now have about 650 people using the app, which equips our people with a paperless system to receive information and perform their work. Regular updates as part of our maintenance processes are ensuring it meets current and future demands.

In 2017-18, we developed an eMap to put geographical information system technology at our people's fingertips using the Work Order App. Field team training has ensured best use of this technology, which provides proactive service interruption information to our customers.

Building on this work was our new Click-Dispatch program, which automates the scheduling and dispatch of work to field teams. This new technology is now used by some field teams and in 2018-19 will be provided to our remaining maintenance teams across South Australia.

To improve safety for our most remote and isolated people, 450 vehicles were fitted with a new safety system, with the second stage of this safety project in 2018-19 to focus on wearable safety devices for our people.

As part of our mobile field office, we have also introduced an app giving our regional teams access to the incident and hazard management system. This has enabled them to have information at their fingertips, including procedures and Dial Before You Dig plans, as well as the ability to log incidents and potential risks.



Improving water aesthetics

Interacting with our customers across the state continues to help us understand the drinking water aesthetics they value. This information guides how we develop water aesthetic improvements. Working together with customers has also provided valuable two-way knowledge and information-sharing opportunities.

Our Take the Tap Test program continued with 12 sessions held in metropolitan Adelaide, the Yorke Peninsula, Riverland, Mid-North, South East and Victor Harbor. More than 2 000 members of the public enthusiastically participated in these sessions, providing valuable information about their taste preferences, enabling face-to-face conversations between our people and members of the public and their families on a range of water service matters.

From these customer engagement activities we understand the water quality and aesthetics our customers value and use this feedback to guide our long term management of drinking water. The approach also considers our performance against the aesthetic targets in the Australian Drinking

Water Guidelines and will inform the development of Our Plan 2020-2024, with the goal of improving overall customer perception of water quality.

In 2017-18 we installed four community drinking water fountains in key regional areas: Port Augusta, Port Lincoln, Coonalpyn and Monarto Zoo. These water fountains are available for everyone to use, including their pets, making access to drinking water easy when people are travelling or out and about.

Continuity of essential services and support when things go wrong

During 2017-18 we changed our management of faults to better coordinate our organisation-wide resources and ensure reliability of water and sewerage services. In this time we have developed and begun implementation of seamless service behind-the-scenes, focusing on processes, people and technology.

This project saw the alignment of our metropolitan and country dispatch functions and a range of other improvements, which will lead to a coordinated and efficient response and support service for customers who are temporarily affected by a network fault. Benefits from these changes will flow to customers in 2018-19.

Through focus groups we also engaged with customers to understand how and when they want to be kept informed when they are impacted by a fault. This work aligned with other customer experience activities to improve temporary service interruption notifications.

Sustainable payment arrangements

We are making it easier for customers to pay their bills. By servicing our customers at the first point of contact and working with them to provide tailored solutions, we are ensuring sustainable payment arrangements are in place.

Improved asset management

In 2017-18 we matured our asset management to meet ISO certification standards. Our integrated, organisation-wide asset management framework places customers at the heart of our decision-making.

Improving the way we manage our assets enables us to make infrastructure investment decisions without increasing our expenditure, while meeting our customers' and stakeholders' service expectations.

Building organisational resilience

To mitigate the consequences of disruptive events and create opportunities to continually improve the services we provide to our customers, in 2017-18 we developed an Organisational Resilience Policy. In addition, we also completed:

- analysis of alternative power availability for our critical infrastructure during power supply interruptions
- a review of critical information technology systems and disaster recovery planning
- training in emergency management procedures for incident controllers
- training exercises with our Executive Incident Management and Incident Management teams, ensuring we are prepared for disruptive events
- participation in international research on real-life resilience through the Water Research Foundation, enabling greater knowledge about best practice in leading organisations worldwide.

Keeping information secure

Implementation of an Information Security Management System in accordance with ISO27001 has improved our corporate cyber security. The system combines management of cyber security risks, incidents and hazards with our existing corporate governance framework and has increased compliance.

In 2017-18 we developed incident response plans for nine cyber security scenarios and improved the way we manage digital identities and access to our technology systems. Cyber security training was also delivered to our people and key partners, ensuring everyone is actively contributing to the organisation's digital safety.

Operations Control Centre enhancements

As our use of technology grows and develops we are ensuring new and future systems, tools and processes are integrated in our Operations Control Centre.

In 2017-18 we began incorporating Adelaide's CBD smart water network data and field worker safety systems into our Operations Control Centre, adding to our energy management which is already integrated and continues to be enhanced. The Supervisory Control and Data Acquisition system was upgraded to ensure version control and licence and alarm management.

Work was undertaken to improve our infrastructure outage management coordination processes and system. This contributes to more cost effective operations and helps plan temporary service interruptions, minimising risks and customer impact.

Price increase held to CPI

We continued our commitment to keeping water and sewerage prices for South Australians as low and stable as possible, with 2018-19 price adjustments capped at 1.9 per cent, on average, to reflect the Consumer Price Index (CPI).¹

For the average metropolitan residential customer, where we supply a water and sewerage service, that is an annual increase of around \$23.²

Our prices take into account a number of factors, including the cost to provide, sustain and improve the delivery of water and sewerage services across South Australia.

Under the state-wide pricing policy, most of our customers pay the same price per kilolitre of safe clean drinking water, regardless of where they live or the cost of providing the service to that location. Sewerage prices are also designed so average costs billed are as consistent as possible across the state.

We continue to perform favourably when compared to our interstate counterparts.

The Bureau of Meteorology's *National performance report (2016-17)* was released in March 2018 and presents an analysis of water utility performance across the country. This showed our annual residential combined water and sewerage bill (based on 200 kilolitres) was the eighth cheapest, among 14 comparably-sized utilities, and mid-range when compared to all organisations which reported against this measure.

¹ March Consumer Price Index, All Groups Index Number (weighted average of eight capital cities) published by the Australian Bureau of Statistics, to align to the Essential Services Commission of South Australia's 2016-20 revenue determination.

² Based on the average metropolitan residential water use of 184 kL and property value of \$447,000.



Mount Gambier's Blue Lake. Photo courtesy of the South Australian Tourism Commission.

Securing water services for the lower Eyre Peninsula

In 2017-18 \$1.6 million was invested in new back-up generation to ensure continuity of water services for lower Eyre Peninsula residents, in the event of a sustained power outage.

Six new portable 110 kilo-volt-ampere (kVA) diesel generator units are now on hand for emergency deployment to power production bores in the Uley Basin bore field, the primary source of drinking water for the lower Eyre Peninsula.

Another 1 250 kVA unit will power the Uley South and Duckponds Pump Stations to help maintain reserve levels in storage tanks and water pressure across the distribution network.

Greening Mount Gambier's Blue Lake surrounds

Locally sourced native trees and shrubs were planted near the Pioneer Memorial at the entrance to the Blue Lake at Mount Gambier, complementing existing vegetation and ensuring unobstructed views of the stunning tourist attraction were retained from the nearby lookout. This activity was undertaken in consultation with City of Mount Gambier and SA Heritage Council.

Improving assets

To replace and upgrade water and wastewater assets and infrastructure across the state, \$430 million was invested, ensuring the delivery of reliable, high quality services to our customers.

Water main breaks in the metropolitan area

1 693 main breaks*

18.2 breaks/100km*

Water main breaks in country South Australia

2 168 main breaks*

12.2 breaks/100km*

* Estimated result.

Managing the water network

Our ongoing water network management program focused on improving supply reliability for our customers. We installed 89 kilometres of new water mains: more than 51 kilometres in metropolitan Adelaide and 37 kilometres in country areas.

The Bureau of Meteorology's *National performance report (2016-17)*, confirmed our network as one of the best performing in Australia when it comes to managing water main breaks.

According to the Bureau, South Australian customers experienced 13.5 water main breaks per 100 kilometres of main, well below the national average of 21.1, and only bettered by four of 14 comparable water utilities nationally.

Our ongoing water main replacement program will see a further \$137 million invested to replace around 375 kilometres of water mains across South Australia through to 2020.

Morgan Water Treatment Plant upgrade

An \$8.5 million upgrade to the Morgan Water Treatment Plant began in April 2018 to meet future demand growth and enhance the quality of drinking water we supply to more than 130 000 regional South Australians. As well as increasing the treatment plant's storage capacity to 42 megalitres, the project will upgrade the filtration and disinfection systems.

Water from the Morgan Water Treatment Plant is delivered to customers from Burra and Clare in the state's Mid North all the way to central Eyre Peninsula.

The project, due for completion in late 2018, is creating approximately 20 new jobs during construction and is being delivered by South Australian company Leed Engineering and Construction.

South East wastewater treatment plants

To extend the service life and further secure reliability of sewerage services we provide our customers living in Millicent, Mount Burr and Nangwarry, we are investing \$4 million to upgrade three wastewater treatment plants. The upgrade work at Millicent began in February 2018, Nangwarry works started in March, and Mount Burr in May.

Aldinga Wastewater Treatment Plant improvements

Upgrades to the capacity of the Aldinga Wastewater Treatment Plant began in March 2018. The \$15.7 million investment builds upon the facility's 2011 expansion and will take the site's total capacity to 3.2 million litres of wastewater inflow per day.

This project will ensure water used by the area's steadily growing population continues to be sustainable and managed safely. Work is due for completion in mid-2019.

New infrastructure including wastewater inlet screens, a primary sedimentation tank and sludge storage facilities will be built within the treatment plant precinct, with a range of additional works to be completed on existing assets to increase their functionality.

Hope Valley Tank upgrade

Work was completed on a \$21.6 million upgrade of the water storage tank in Hope Valley, our largest storage tank that plays an important role in supplying water to more than 100 000 residents in Adelaide's north-east. This upgrade is part of a broader, \$89 million program to refurbish 111 water storage tanks across South Australia through to 2020.



Bachelor's Bridge was exposed during works on the Kangaroo Creek dam upgrade.

Kangaroo Creek Dam upgrade

Works on the \$119.9 million Kangaroo Creek Dam project to meet updated safety guidelines are progressing and provided a rare sight to the community in March 2018 when Bachelor's Bridge was visible for the first time since 2001. Access to work on the dam wall and spillway necessitated lowering water in the reservoir with the controlled release supporting dilution flows into the Torrens as well as feeding into the Hope Valley Reservoir. Crews are halfway through the upgrade which is on track for completion in late 2019.

New Warooka and Point Turton pipeline

A new pipeline connecting the lower Yorke Peninsula towns of Warooka and Point Turton is underway. The project is set to greatly benefit the local community with improved water quality and increased water security and is due to be completed in October 2018.

Warooka and Point Turton's water supply is sourced from a bore field which, according to our water security modelling, is not adequate to deliver water for future demand. The towns' new supply will come from the River Murray and treated through the Morgan or Swan Reach Water Treatment Plant, to produce safe, clean drinking water.

The new 38.5 kilometre pipeline will join Yorke Peninsula's existing network at Minlacowie and move water to Warooka before passing through the local distribution network to supply about 1 500 customer connections.

WORKING TOGETHER

As a team, our productive, respectful relationships with customers, regulators and other stakeholders are central to delivering valued services. It is vital we understand and support our customers.



Customer services online

Public expectations continue to evolve. Customers of today are seeking responsive service, accessible information and more opportunities to efficiently interact with us online. In September 2017 we launched *mySAWater*, a new online portal offering our customers the ability to:

- receive eBills
- pay their bills online
- view their bill and payment history
- update their account and personal details
- view their water use, with comparison data available
- manage payment extensions and direct debit
- use their preferred device, 24/7 to access their account
- be supported with our customer service team one-on-one through a new live webchat function.

In addition to providing a great new service for our account holding customers, this initiative has delivered business efficiencies such as lowered costs for printing and posting bills, all contributing to keeping prices low. As at 30 June 2018, 61 490 properties were registered with *mySAWater*.

During 2017-18, the following improvements were made to our online services:

- a new and prominent interactive online map giving the public information about current faults
- automated account balance checks were introduced, available 24 hours a day, seven days a week through our Customer Care Centre phone number
- SMS messages for customer satisfaction surveys and payment reminders
- customer refunds, when needed, provided by electronic funds transfer.

In addition, *mySmartWater* for business customers was released, helping more than 200 of our customers monitor and manage their water use and accounts online with real time data and average consumption rates in hourly, daily and weekly increments. Feedback has been overwhelmingly positive, with customers appreciating the new opportunity to make best use of their supply and better manage their water costs by identifying and addressing anomalies such as leaks or faulty infrastructure, as well as building more efficient water practices.



Supporting customers with bill payments

Our Customer Assist Program helps residential customers experiencing short- and long-term financial difficulty. By working together with these customers to manage their service costs through staggered bill payments, we develop an agreed flexible plan and ensure regular review checks to provide support.

An average of 2 360 customers participated in our Customer Assist Program each month during 2017-18. Through additional incentive payment support, 1 571 customers completed the program by fulfilling their agreed payment plans and returning to paying their bills quarterly.

This program proudly aligns with the United Nations Sustainable Development Goals and is part of our commitment to reducing inequality, working in partnership, no poverty and providing clean water and sanitation.

Talking all things water with our customers

Throughout the financial year we worked closely with our customers, through a comprehensive range of engagement activities, to gather their input about the future provision of water services to inform *Our Plan 2020-2024*, our operation and infrastructure investment plan.

Our economic regulator, the Essential Services Commission of South Australia (ESCOSA), requires provision of our business plan every four years. ESCOSA uses this to determine allowable revenue for that period, in effect revenue we are able to collect from our customers through charging for our water and sewerage services.

Together with our customers, we explored what they value and prioritise for the future of their water and sewerage services. During 2017-18 we:

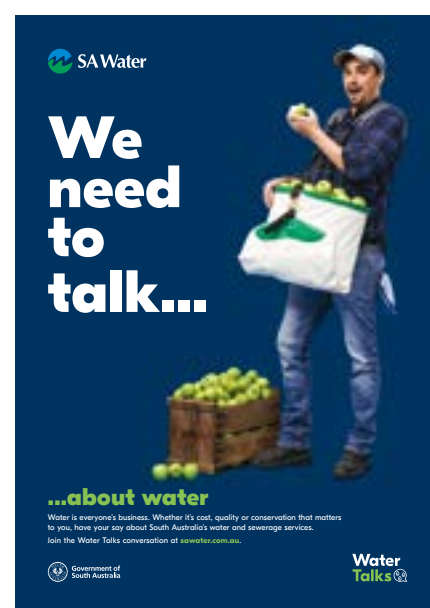
- engaged with approximately 180 customers through workshops held from October to December 2017, as well as our business and residential Customer Advisory Groups
- launched our Water Talks engagement-specific website, attracting 300 registrations from customers
- formed a representative 22-member Customer Working Group to help us as we prepare *Our Plan 2020-2024*. This group will work closely with us in the latter stages of developing this plan.

In April and May 2018, a public survey open to all South Australians asked *What matters to you?* and provided a range of service options with different cost impacts for customers to consider. More than 5 000 customers had their say about the future of water services by completing the survey.

To promote the survey and encourage participation from a good mix of our customer base we:

- hosted drop-in sessions with multicultural communities
- presented 11 community displays and drop-in sessions around the state to talk to people about the survey
- promoted the survey through social media, radio and print media across the state
- contacted approximately 80 000 customers directly, including business, trade waste and residential customers
- gathered qualitative feedback from Aboriginal elders and their communities across the state
- held focus groups to work with small, medium and large businesses to strengthen our understanding of the survey data.

The information gathered will be used in 2018-19 as we develop *Our Plan 2020-2024* ahead of its submission to ESCOSA in October 2019.



Consistent customer claims management

This financial year we have improved our customers' experience in the event of damage caused by our infrastructure by simplifying our claims management process. Customers are assigned a case manager for their claim giving them a single point of contact with tailored support.

Improved services for developers

South Australia's building and property development industry has particular needs and requirements for their water and sewerage services. Considerable engagement with our customers and stakeholders in this industry was undertaken during the financial year resulting in a range of improvements. We held 16 consultative workshops with stakeholders to gather their important feedback. As a result of this consultative work, we have:

- introduced a new interim contractual agreement for developers – known as the Development Agreement Formal Instrument – which enables them to secure approvals before starting construction works
- initiated 'kick-off' meetings to be held before a developer starts site works to introduce all relevant parties and enable open communication.

We also streamlined our charges which will deliver welcome savings for developers from 1 July 2018.

Building our reputation in the community

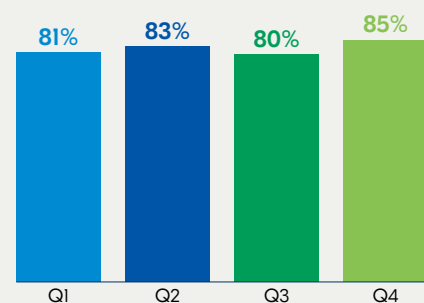
Significant work was undertaken during 2017-18 to improve how our customers and the communities in which we operate view and understand our organisation. A refresh of the brand for SA Water, Australian Water Quality Centre, and Water Engineering Technologies was completed to create clarity for the South Australian community. To reflect the change, we updated our online presence, uniforms, and customer communications. All new internal communications and signage now aligns with the refreshed brand and we continue to implement it across customer facing materials.

Demonstrating our deep respect for the connection that Aboriginal and Torres Strait Islander peoples have with the land and water, Aboriginal Connection Branding has also been developed in consultation with Aboriginal communities across the state.

We have prepared a blueprint for communications outlining our approach and principles to best communicate with our customers and our people. It maps the range, purpose and process for our communications channels used to talk and engage with our people, our customers and the public, including social media. This enables clear and consistent communication on our customers' channels of choice.

In 2017-18 an organisation-wide engagement framework was developed. It includes the principles, approach and support mechanisms to empower our people to consistently and effectively work with stakeholders and develop positive professional relationships.

Satisfaction with our Customer Care Centre



Our Customer Contact Centre has maintained customer satisfaction with results remaining consistent across the financial year and a slight upward trend in the fourth quarter.

ABW transforms our physical workplace

Activity based working (ABW) is a transformational change for organisations that provides people with a choice of different types of office furniture and work areas for use dependent on the task at hand. ABW has been adopted in our Adelaide office, bringing our CBD-based people into one building and in-step with established regional work practices.

In all, 240 people relocated and 1 250 adopted a new way of working which has increased collaboration, improved workplace culture and engagement, as well as delivered benefits to our customers through cost savings and improved services.

Billing system modernisation

Our billing system continues to be maintained and upgraded and in 2017-18, we scoped our future billing capability requirements. System modernisation is part of our billing roadmap that reduces technology risks by ensuring we operate modern IT environments and applications.



Better understanding our customers

To develop a deeper understanding of our customers and ensure we design and deliver services that respond to their expectations, we have further refined customer profile groups. This complements our direct engagement activity for our future business plan and strengthens ongoing and day-to-day decision-making across the organisation.

Odour control technology at Port Adelaide

In May 2018 we installed an Australian-made system which uses three-stage odour control technology at the Port Adelaide Wastewater Pump Station, to give local residents a long-term solution for sewage smells detected around the facility.

The work to improve the pump station follows feedback from residents who live in the area. We worked with them as we developed the upgrade design, including the landscaping and colour scheme for the system.

Two biological processes, called biotrickling and bio filter, remove around 98 per cent of the sewage odours, while the third and final stage uses activated carbon to remove any other lingering smells. The project is due to be completed in 2018-19.

Supporting our community

In October 2017 we became the first South Australian location sponsor for Orange Sky Australia, a homeless charity providing free laundry and social support services to people living on the streets.

In April 2018 we launched our new Community Partnership Program which offers grants of up to \$10 000 to support grassroots and community groups across South Australia.

The program is open to more than 4 700 hard-working South Australian community organisations whose activities have a link to water and complement our values of working together, delivering safely, and being accountable, genuine and innovative every day.

Applications were received in 2017-18 with grants available from July 2018.

Planning Kangaroo Island's water future

Activity to refresh a long-term water supply plan for Kangaroo Island started in 2017-18. A Community Reference Group, comprising representatives from 18 community, business and industry associations, helped lead the first phase of planning by working with us to examine current issues and opportunities and act as a conduit to their stakeholders.

An updated long-term plan will consider the current and projected water supply and demand, as well as possible future upgrade options for a reliable and sustainable supply which meets residential and commercial purposes for the next 25 years and beyond.

Working together with the reference group, we used an analysis tool which balanced a wide range of influencing factors such as cost, environment and social impacts. Using the insights gained we developed several water supply options which were presented to the broader Kangaroo Island community at drop-in sessions during May 2018.

This activity will continue into 2018-19 as we work to finalise the updated long-term plan.

Above photo courtesy of the South Australian Tourism Commission.



Show goes learnt about our network at the 2017 Royal Adelaide Show.

Community programs and events

Our involvement in community events and student learning programs continued throughout 2017-18. These included:

- 8 283 students and their teachers participating in our Brainwave program and learning about the importance of water as a resource, the water cycle, ways to overcome scarcity and how we can all contribute to sustainability
- 2 365 people toured the Adelaide Desalination Plant and Kauwi Interpretive Centre
- 1 177 people attended community presentations about water services and toured our treatment plants
- our popular Quench Benches providing drinking water to more than a million people at a range of public events throughout South Australia. More than 10 000 people had the chance to see and talk about water and sewerage science with us and ask us questions at events including the Royal Adelaide Show, regional Field Days, and the annual *Science Alive!* exhibition.

LEADING THE WAY

To achieve our vision, we must become national and global leaders giving our customers confidence we are innovating to achieve outcomes for them. As a leader in South Australia, we support our local community and economy.

Leading reconciliation

We want to be a leader in reconciliation; for our customers, our partners, our people and the communities in which we operate.

Our Stretch Reconciliation Action Plan 2017-2020 (RAP), aims to consolidate the achievements of our two earlier plans and stretch us further. This RAP is about embedding reconciliation so it is part of our business-as-usual activity, a significant step in becoming a reconciliation leader.

Among our commitments, we support Aboriginal communities to thrive by using innovative and sustainable solutions to provide safe, clean water. This work is directly related to these nine United Nations Sustainable Development Goals:

1. no poverty
2. good health and well-being
3. quality education
4. clean water and sanitation
5. affordable and clean energy
6. decent work and economic growth
7. industry, innovation and infrastructure
8. reduced inequalities
9. sustainable cities and communities.

In the first year of our RAP we have completed nearly half of our actions with the remaining 52 per cent on track to be finished by 2020.

Among the achievements this financial year was online cultural awareness training undertaken by more than 1 000 of our people. The program was designed to empower our people to be ambassadors for reconciliation. In addition, 235 people participated in a more comprehensive, face-to-face cultural competency training program.

Various events and activities were held to celebrate National Reconciliation Week and NAIDOC Week, ensuring these opportunities to learn more about Aboriginal culture and history were best used, and the work of our people and the South Australian Aboriginal community was recognised. These included a prominent exhibition at SA Water House in Victoria Square/ Tarntanyangga, featuring paintings by South Australian artists.

During 2017-18, at its peak, we achieved an Aboriginal employment rate of 2.28 per cent, our highest to date. We developed an Aboriginal and Torres Strait Islander workforce development plan and provided several major secondment opportunities for these workers across our business.

Our procurement policies were updated enabling greater access for Aboriginal businesses to be awarded work. Importantly, supplier proposals for Aboriginal employment and business opportunities have been included in procurement planning processes, documentation and tendering.

To formally acknowledge our commitment to reconciliation, a statement of commitment was endorsed and signed by the Chief Executive and Chair of the Board. Our people were educated on the importance of acknowledging country, and we provided guidelines on when and how to do this. Acknowledgement plaques have been installed at all of our regional sites.



Our Water Holes
Aboriginal Connection
Branding.



Along with these highlights, this financial year we have, in partnership with Aboriginal communities, delivered:

- approval for infrastructure replacements on three communities and one government facility in the Anangu Pitjantjatjara Yankunytjatjara (APY) Lands
- the continued water reuse project to green the Amata oval in the APY Lands
- a partnership with the Tia Tuckia Community to support their water service infrastructure
- an industry partnership with the Aboriginal Lands Trust to deliver community forums to discuss water and infrastructure opportunities and concerns in Aboriginal communities.

Our Aboriginal and Torres Strait Islander people have worked as mentors for Aboriginal students through the Aboriginal STEM Congress and links with Aboriginal schools across the state.

Kurna artist and traditional owner Paul Hertzich developed our Aboriginal Connection Branding — entitled *Water Holes* — which represents five regions of South Australia and pays homage to the Aboriginal connection to the waters and land on which we operate.

This financial year the water supply management for four more communities on the APY Lands was added to our supply service portfolio. Working in partnership with Kanpi, Nyapari and Watinuma Aboriginal communities, and government facilities at Murputja, we will upgrade their water supply facilities to ensure they comply with the *Australian Drinking Water Guidelines* (2011).

With these additional communities, we now manage water supplies for 21 remote Aboriginal communities and one government facility across the APY, Maralinga Tjarutja and Aboriginal Lands Trust lands.

Top left: Kurna Elder, Frank Wanganeen takes students on a tour of the Bush Tukka garden at the Kauwi Interpretive Centre.

Above, top to bottom:

Smoking ceremony at the launch of National Reconciliation Week 2018.

Allan Sumner, CE Roch Cheroux and Jeffrey Newchurch at the 2018 National Reconciliation Week smoking ceremony.



Solar energy generation will help us achieve a zero cost energy future by 2020-21.

Fostering innovation

To lead the way in the water industry we are embedding innovation in our culture and providing opportunities for our people to improve the way they work to deliver outcomes for customers, by establishing a progressive, self-sustaining innovative environment.

In 2017-18 we launched our internal *Innovation Speaker Series*, bringing insights and approaches into our business to encourage new ways of thinking and working.

Design thinking tools have been introduced using experiential learning in our innovation learning labs. These have been applied to a range of initiatives to help people identify and solve problems that matter to our customers.

Innovation also provided a means for collaboration through our *Better Ways* platform, designed to capture ideas from our people to improve our business and the way we work.

An early outcome was the creation of our Energy Management Team, which has developed a plan to achieve zero net electricity costs by 2020-21. Trials for land- and water-based solar photovoltaic panels are planned, as well as innovative storage solutions such as silicon thermal storage and momentum flywheels. As one of the largest electricity users in the state, the positive effects of having a zero cost energy future will be significant.



Right: Water for vineyard irrigation in the Barossa has increased.

Supporting state growth

The long-term future of South Australia's economy, society and environment guides all our decision making. Our support of state development means we actively contribute to the South Australian community by delivering commercial opportunities that benefit our customers and ensure our economic viability.

Using more recycled water through the Northern Adelaide Irrigation Scheme

We are Australia's second largest recycler of water with 32 per cent of the state's wastewater re-used to irrigate wine and horticulture regions, city park lands and for many other uses. This saves money, water and contributes to gross state product.

A significant focus this year was the \$155.6 million Northern Adelaide Irrigation Scheme (NAIS) project, which will bring recycled water from Bolivar Wastewater Treatment Plant to the northern Adelaide Plains and will help grow our state's export horticulture industry, creating investment, jobs and earnings for South Australia.

In 2017-18 the first two design and construct contracts were awarded to the Leed/Valoriza Joint Venture, and we secured agreements totalling more than two gigalitres for purchase of NAIS water once the infrastructure is complete.

Barossa water investment grows jobs and supports grapegrowers

In 2017-18, investment continued in Barossa Infrastructure Limited (BIL), a scheme supplying more than 300 vineyards with approximately 450 connections to help the region's wine industries grow and thrive. Together with BIL, we are co-investing \$24 million to deliver an extra three gigalitres per year of irrigation water.

Of this, \$10.6 million is being invested to upgrade our infrastructure and improve operational efficiency of the Mannum to Adelaide Pipeline which supplies metropolitan Adelaide. The additional supplementary irrigation water, mainly supplied to existing customers, assists their business sustainability by drought-proofing and providing capacity for additional plantings.

The project has created 17 jobs during construction with 84 permanent new vineyard jobs and 90 wine production roles estimated to result from the initiative. Work is nearing completion with some increased capacity made available to customers in the 2017-18 summer.

Urban liveability

In 2017-18 our work on urban liveability solutions continued with the development of a transition plan to move Adelaide to a water sensitive city, which will now form the foundation for an integrated urban water plan.

Drawing on a successful stormwater capture and reuse scheme at Adelaide Airport, during the financial year we continued to gather evidence from the airport cooling project and urban cooling achieved through smart watering. This innovative work focuses on efficient water use, reducing wastage and quantifying the other benefits such as urban cooling and potential reduction in energy use. It has applications for customers through smart use of garden watering to reduce temperatures around households in hot South Australian summers.





With the ION Chef, the AWQC is leading the application of DNA technology in the water industry.

Putting customer needs at the heart of decision-making

In 2017-18 we piloted a program designed to support and empower our people to respond to customers' needs in a tailored way when they have received a poor experience. This pilot proved beneficial for customers and our people, with planning underway to extend this program across customer facing teams in 2018-19.

Our customers are diverse and have different water needs and use requirements. In response, we actively consider the services we provide and their associated costs. This ensures we provide fit-for-purpose water services that meet the various needs of our customers, be that residential or industry.

Growth in laboratory services

The Australian Water Quality Centre (AWQC), our national laboratory service, developed a capability and capacity plan to manage future growth of services from our Adelaide and Melbourne laboratories, and improve outcomes for our customers. In 2017-18 it secured new contracts which support the growth of both laboratories.

In an Australian water industry first, AWQC scientists integrated high-throughput DNA sequencing technology to their water quality analysis services in 2017-18. Using two new pieces of equipment — the ION Chef and the ION S5 — which create DNA chips and unique barcodes for organisms found in water samples, they were the first laboratory to apply this technology in the water industry.

DNA sequencing reduces the time required to perform the analysis of water samples for organisms present and provides far greater accuracy than traditional methods. It also enables a broad range of organisms, vertebrates and algae to be detected from a single sample. This molecular-based analytical technique has significant implications for public health, research, conservation efforts, and optimising processes and conditions within water and wastewater treatment plants.

In 2017-18, AWQC refreshed their branding and undertook a customer survey to improve the customer experience they deliver and ensure their services remain of value.

The AWQC exhibited in Brisbane at Australia's international water conference and exhibition, *Ozwater'18*. Involvement included a product pitch and poster about new molecular technology with strong interest in the use of this technology from many companies around Australia.

Transfer of Virginia Pipeline Scheme ownership

The Virginia Pipeline Scheme (VPS) provides recycled water for horticultural irrigation in Virginia and its surrounds from the Bolivar Wastewater Treatment Plant. Working together with TRILITY, ownership of the scheme, and the supply to about 340 customers serviced by it, transferred to us on 1 January 2018.

Since the transfer of ownership, we have established a customer service office in Virginia and engaged TRILITY to operate and maintain the 142 kilometres of water mains delivering up to 20 gigalitres of recycled water each year.



Morgan Water Treatment Plant wins state's top drop

In July 2017, water from the Morgan Water Treatment Plant was judged the best tasting tap water in South Australia for the second year in a row at the Water Industry Operators Association of Australia's 'Water Interest' day.

A panel of water industry experts from across the country judged samples from around South Australia at the event which showcases the quality of water produced in the state, and educates people about where their water comes from.

Creating a zero cost energy future

In December 2017 we announced plans to invest in energy generation and storage with the aim of achieving zero net electricity costs by 2020-21. Sustainably reducing operational expenses such as electricity will help us keep water service charges as low and stable as possible for our customers.

The 2020 target is being progressed through a range of complementary initiatives that see mature technologies embraced for immediate impact, complemented by testing a range of emerging technologies in partnership with local and international providers.

Solar and storage trial at Crystal Brook

A 100 kilowatt solar photo-voltaic and 50 kilowatt hour battery storage system was installed as a trial at our Crystal Brook depot to increase its energy self-sufficiency and reduce site running costs. The success of this \$500 000 trial will help determine whether to adopt this type of energy storage at other sites across the state.

Predictive energy management

Also during the financial year, in light of no off-the-shelf solution being available worldwide, we developed a Predictive Data Analytics and Optimisation solution in-house that was implemented to optimise the performance of our energy assets and predict when to generate, store, sell, or buy.





CAPABLE AND COMMITTED TEAM

Our experienced and capable team consistently lives our values to safely deliver for our customers every day.

Safety and wellbeing of our people

Safety is taken very seriously in our business, with the wellbeing of our people considered in every decision we make. To ensure safety remains front of mind, we incorporated safety leadership in our two-day people workshops with a focus throughout the year on better identifying critical safety capabilities for our middle and frontline people leaders and ensuring leadership at all levels is equipped to support our people to work safely.

In 2017-18 we ran a musculoskeletal program, building the capability of our people to adopt improved work practices supporting the reduction of musculoskeletal risks. This resulted in a 48 per cent reduction in musculoskeletal injuries in our workforce during this 12-month period.

Safety frameworks are being developed by our field workgroups, enabling them to tailor their approach and proactively manage their risk factors. By empowering our people to lead their own safety, everyone can take responsibility.

Also during the financial year, education sessions were held to present our revised drug and alcohol program ahead of random and unannounced testing being implemented in the new financial year.

Field worker safety

Technology is improving safety for field crews who work in remote or isolated areas and circumstances. An in-vehicle safety system has been implemented in more than 470 of our fleet vehicles supporting our remote and isolated workers to undertake their roles safely. The system has an in-built safety alert that automatically raises an alarm in the event immediate help is needed. Our Operations Control Centre in Adelaide monitors the system 24 hours a day, seven days a week.

Inclusion and diversity

We embrace diversity and seek to create a broad organisational culture of inclusion, reflecting our customer base, and helping us improve our performance and deliver for our customers. In 2017-18 we revised policies and procedures to further foster fair treatment, anti-discrimination, harassment and working flexibly.

Our diversity programs encompass apprentices, technical cadets, graduates and water industry trainees and are designed to provide jobs for young people while enabling diversity among participants such as cultural, gender and thought diversity.

Measures and targets were set for all our diversity programs and we achieved improvements across most of these in 2017-18, including an increased representation of women in our apprentice and water industry trainee programs.

Support for our people who identify as Aboriginal and Torres Strait Islanders continued through career development plans and secondment opportunities.



Our 2017-18 graduates

Building our customer-centric culture

A high performing and collaborative culture is critical to deliver our best for our customers. Our approach is driven by customer outcomes, in line with our strategy, as we strive to achieve excellence in what we do and how we do it.

To develop more constructive and effective behaviours across our organisation, between July and December 2017, 33 two-day interactive Ripple workshops were held, engaging our people and embedding our vision, strategy and values. More than 2 000 staff and contractors attended these sessions which have successfully enabled the start of our culture change program.

To support this, four people leader development sessions were held in June 2018. More than 270 leaders from across the business participated focusing on developing great leaders, the impact of our leadership group on our culture, and each individual's leadership impact.

This model is now being finalised as our in-house development program with our leadership and capability, and learning capability frameworks also being developed.

Developing the capability of our people

In 2017-18 we reviewed our existing technical capability frameworks for operational teams and identified where capabilities play an important role in the life cycle of our people, such as recruitment and selection, development, talent management and workforce planning. People from across the business were engaged to identify and qualify core capabilities needed for us to deliver our strategy and live our values. Draft capability frameworks were developed for behavioural and leadership capabilities.

To achieve the required capabilities in our workforce, we also developed a learning framework which uses the 70:20:10 principles: 70 per cent learnt on the job, 20 per cent learnt from others (such as coaching), and 10 per cent learnt through formal training. This learning framework will be implemented from 2018-19.

Enterprise Agreement

In March, employees voted in favour of our 2018 Enterprise Agreement.

The Agreement incorporates a number of new benefits including:

- the provision of 15 days' paid Family and Domestic Violence Leave, well above the five required by the Fair Work Commission, for our permanent employees experiencing family or domestic violence
- the ability to cash out Annual Leave and access the state government's injury and income protection policy that provides additional work-related injury or illness entitlements
- an adjusted Accommodation and Meals Allowance in recognition that our people are travelling more widely as we deliver reliable water services for our customers
- salary increases and a 1.5 per cent increase for a number of allowances.

KEEPING IT SIMPLE

Simple, easy, and customer friendly processes are important to create value for our customers. Keeping it simple motivates our people to challenge the status quo, get involved and act on their ideas for improving how we work.

Keeping our processes simple

During 2017-18, significant work got underway to simplify and improve the way we work making it easier for our customers and our people. We reviewed and simplified numerous activities across the business, including the following:

1. **Service continuity** – the ‘behind the scenes’ management and restoration of service interruptions end-to-end is now simpler and more effective with innovative technology being used to provide a better customer outcome.
2. **Customer growth** – simple and standardised processes have improved how we share customer requirements across the business resulting in better quality and timeliness of customer responses.
3. **Stakeholder engagement** – the implementation of a consistent approach to empower our people to effectively manage stakeholder interactions, improving these relationships.
4. **New business opportunities** – a consistent approach for evaluating new opportunities proposed to us enables us to make informed decisions to grow our business and deliver on our strategy.
5. **Customer collections** – a reviewed and simplified process to ensure sustainable payment arrangements is in place.

Delivering new technology and digital capability

Technology is improving the way we do countless things across our organisation: delivery of services, engagement, customer service and communications with our people, our customers and our communities. During 2017-18 we developed an approach which enables faster implementation while appropriately managing risks.

In the financial year, 40 new digital capabilities were delivered within the business. The development and scaling of an agile framework continues with the approach being extended to our operational IT teams as well as in projects.

An IT services panel was established to consolidate and better manage our suppliers and will be operational from July 2018, while a new approach to project delivery aligned to business capabilities will deliver stronger project outcomes to benefit our people and customers.

Integrating our management systems

Work to streamline and better coordinate our management system was undertaken in the 2017-18 financial year. Consolidating the tools and technology to support management systems and establishing roles and responsibilities for end-to-end execution of processes enables us to better respond to our customers.

In 2017-18:

- two enhancements of our risk management system were made to improve its useability and efficiency
- the audit management process was improved to better align with our internal audit process
- our Business Management System was expanded to include more team procedures and improve content access
- the annual external audit against the *Safe Drinking Water Act 2011* was completed successfully.

Integrating risk management

A robust risk management culture is being developed across our organisation through the improvement of processes, systems and practices and by educating our people. In 2017-18 a business-wide assessment was undertaken, resulting in a number of actions being identified to lift the maturity of our risk management practices. Investigations of business processes were also conducted to identify opportunities to simplify and integrate risk management practices.

Training for our people on risk fundamentals is underway to ensure a standard baseline awareness of risk management across the organisation. Further, we developed a set of risk and opportunity decision criteria to support the development of *Our Plan 2020-2024*.

Aligning the Adelaide Services Alliance

The Adelaide Services Alliance sees Allwater deliver water and sewerage services to customers in metropolitan Adelaide on our behalf. In 2017-18 we reviewed and updated the Alliance contract performance measurement framework to align it with our customer-centric strategy. The updated framework is designed to improve performance from July 2018.

Organisational change readiness

Our change management approach has been developed to increase the level of change competency across SA Water and Alliance partner Allwater. Increasing our capability for organisational change will build a resilient, effective workforce able to adapt and respond to future challenges and also support the wider culture change focus.

Our change specialists and people leaders are using this approach. A leading change training module was piloted and refined, and an eLearning module was made available to help people develop their skills in leading and managing change.

Work to mature our change management approach will continue in 2018-19.

Self-service analytics capability

Fit-for-purpose, accessible data has the power to improve the services we provide. To enable our people to access and use data, we have a Business Intelligence platform with advanced self-service capability now available. This was achieved in 2017-18 by integrating various systems, enabling access to data about incidents, hazards and risks, customer segmentation, and fault information. We have trained 'power users' to access, analyse and report on this data.

WATER QUALITY

SA Health statement

In 2017-18, SA Water complied with all requirements of the *Safe Drinking Water Act 2011* (the Act) and maintained supply of safe drinking water to South Australia.

SA Water collected 42 799 samples from drinking water supplies to test for health-related compliance. Compliance with the *Australian Drinking Water Guidelines* (2011) (ADWG) for *E. coli* was achieved in 99.97 per cent of metropolitan Adelaide samples, 99.99 per cent of country samples and 99.00 per cent of samples from remote Aboriginal communities. Overall compliance with the ADWG for health-related parameters was 99.94 per cent for metropolitan systems, 99.84 per cent for country areas and 98.73 per cent for supplies to remote Aboriginal communities.

Operation of the interagency Water/Wastewater Incident Notification and Communication Protocol was successfully maintained throughout the period. The total number of incidents reported by SA Water in 2017-18 was lower than in 2016-17. This was primarily due to a reduction in disinfection by-product and filtered water turbidity related incidents as a result of improved water quality in the River Murray.

Water quality incidents were notified by SA Water in a timely and prescribed manner. Appropriate responses and corrective actions were implemented in all cases and these prevented any risks to public health.

Safe drinking water legislation

The Act commenced on 1 March 2013. The audit and inspection schedule started on 1 July 2014 and in February 2018 we successfully completed the fourth annual audit meeting all legislative requirements.

The Act provides the regulatory framework for drinking water providers in South Australia and is administered primarily by SA Health with assistance from local government. Provisions in the Act are underpinned by the ADWG and stipulate requirements for drinking water providers, including:

- registration of drinking water providers with SA Health
- development and implementation of risk management plans
- establishment of approved drinking water quality monitoring programs
- notification of incidents or non-compliance
- audits and inspections to determine compliance with the Act
- use of National Association of Testing Authorities accredited laboratories for sample testing
- reporting of water quality test results to SA Health and providing consumers with drinking water quality information.

We are registered as a drinking water provider and have approved monitoring programs and an incident notification protocol. SA Water provided water quality testing reports for metropolitan, country and remote Aboriginal communities water supplied on a monthly basis with results showing a very high level of compliance. A number of representative SA Water drinking water supplies were audited to satisfy the requirement of the Act. We met the legislative requirement for all metropolitan, country and remote Aboriginal communities supplies that we operate.

Further information on the Act can be found at: sahealth.sa.gov.au/safedrinkingwateract

Additional water quality information is available on our website.

Remote Aboriginal communities

Water quality data has now been included for the 21 remote Aboriginal communities and one government facility across the Anangu Pitjantjatjara Yankunytjatjara (APY), Maralinga Tjarutja and Aboriginal Lands Trust lands that we manage. We commenced management of four additional communities from late 2017 which are also included in this data.



Catchment to tap

We manage drinking water quality from catchment to tap in line with our Drinking Water Quality Management System to ensure a consistent and reliable supply of high quality, safe drinking water for our customers.

This management system is based on the Framework for Management of Drinking Water Quality outlined in the ADWG and endorsed by the National Health and Medical Research Council. The framework outlines good drinking water supply management, based on the best available scientific evidence that will assure drinking water quality and safety at the tap.

Water quality achievements

The successful outcome of SA Health's annual *Safe Drinking Water Act 2011* (the Act) audit found:

- our Drinking Water Quality Management System is actively managed, there were no urgent observations or significant non-compliances and there is best practice water quality management in most areas
- the audited sites and systems demonstrated improved compliance relative to the 2014, 2015 and 2016 audits and demonstrated positive responses to findings from those previous audits
- our people and contractors consistently demonstrated compliance to the Act and regulations and an understanding of the need for such compliance.

The audit result demonstrates the good level of collaboration across our organisation, with our contract partners, and the Department of Health and Wellbeing.

Future improvements proposed for 2018-19 include:

- additional work to further reduce drinking water safety and quality risks associated with power failures
- accelerated program for inspecting bores to mitigate contamination risks
- continually improving our water quality monitoring program for catchment areas.

Incident management

We are committed to applying the *Australian Drinking Water Guidelines* (2011) Framework for Management of Drinking Water Quality which includes two components for the management of incidents and emergencies:

- communication
- incident and emergency response protocols.

We have a Water Quality Incident and Emergency Management Protocol in place and a web-based incident management system to record and generate notification of water quality incidents. These are in line with the interagency Water/Wastewater Incident Notification and Communication Protocol that is maintained by SA Health to adopt the principles of the ADWG and satisfy requirements of the *Safe Drinking Water Act 2011* and *Safe Drinking Water Regulations 2012*.

SA Health defines three types of health related incident classifications based upon a precautionary approach:

- 1. Priority Type 1 incident notification**
An incident that, without immediate appropriate response or intervention, could cause serious risk to human health and is likely to require immediate interagency meetings to consider responses. Procedures for Type 1 incident notifications also apply.
- 2. Type 1 incident notification**
An incident that, without appropriate response or intervention, could cause serious risk to human health.
- 3. Type 2 incident notifications**
An incident that, without appropriate response or intervention, represents a low risk to human health.

Following is a comparative summary of the Priority Type 1, Type 1 and Type 2 incident notifications reported against the interagency Water/Wastewater Incident Notification and Communication Protocol.

State-wide supplies (metropolitan, country, and remote Aboriginal communities)

Reporting period	Priority Type 1	Type 1	Type 2
2017-18*	2	42	90
2016-17#	2	48	159
2015-16	4	32	74
2014-15	1	43	84
2013-14	3	34	87

Note: these notifications do not include wastewater, recycled water and non-drinking supplies.

* Remote Aboriginal communities incidents included in our reporting, including six Type 1 and two Type 2 incidents.

Impacted by River Murray blackwater event.

Priority Type 1 and Type 1 incidents are immediately reported to SA Health, while all Type 2 notifications are reportable within 24 hours, in line with the interagency Water/Wastewater Incident Notification and Communication Protocol. In 2017-18, the numbers of incident notifications decreased significantly when compared with 2016-17. This can be attributed to a reduction in disinfection by-products and water treatment plant filtered water turbidity incidents, primarily due to improved source water quality in the River Murray.

In 2017-18, we continued our focus on early detection and reporting to external agencies, briefing the Minister for Environment and Water, ensuring prompt corrective action and addressing the causes of preventable Type 1 notifications, such as disinfection failures and filtered water turbidity exceedances. Strategies employed to achieve this include optimisation of our drinking water quality monitoring program, ongoing capital improvements, and continuous improvement of our Drinking Water Quality Management System.

The proactive water quality management of targeted individual water supply systems and detection and management of risks continued during 2017-18. Changes in reporting criteria issued by SA Health in the interagency Water/Wastewater Incident Notification and Communication Protocol also occurred and contributed to a change in reporting requirements.

Incident Response Index

The Incident Response Index (IRI) drives and guides correct responses when a Priority Type 1 or Type 1 incident is detected. The IRI is assessed against a number of criteria, with each component in the IRI designed to assist the management of water quality incidents, including reporting, initial response and longer term preventive measures. The overall 2017-18 strategic target for the IRI is 85 per cent compliance.

Criteria used in the Incident Response Index (based on total reportable SA Health Priority Type 1 and Type 1 incident notifications)

Incident reported to relevant agencies by phone immediately (less than one hour)	Overall strategic 2017-18 target: 85%
Incident entered into the incident management system in less than two hours	
Initial effective response taken within three hours	
Written report to Minister for Environment and Water by 3pm next business day	
Root cause analysis completed within 10 working days	
Preventive actions implemented within agreed timeframes	

The continual review and improvement of our incident management processes has positively impacted our overall water quality incident response and performance, maintaining an overall score well above our target.

The Incident Response Index achieved in metropolitan, country and remote Aboriginal communities and overall for 2017-18 compared to 2016-17

System	IRI 2017-18	IRI 2016-17
Metropolitan	97%	99%
Country	92%	92%
Remote Aboriginal communities*	65%	
Overall* (weighted combined metropolitan, country and remote Aboriginal communities)	90%	93%

* For 2017-18, remote Aboriginal communities incident response is included in our reporting.

Focus for 2018-19

In 2018-19 we will:

- continue to improve our online incident management system for reporting and management of water quality incidents and hazards
- conduct refresher training on the Water Quality Incident and Emergency Management Protocol for country, metropolitan and remote Aboriginal communities incident managers
- continue to work collaboratively with SA Health in the review and update of the interagency Water/Wastewater Incident Notification and Communication Protocol
- maintain our high level of incident response performance
- streamline reporting to the Minister for Environment and Water.

Water quality monitoring and testing

To ensure the quality of our product, we perform extensive water quality monitoring across metropolitan, country and remote Aboriginal communities of South Australia, from catchment to tap, including field and laboratory tests.

We monitor for health and aesthetic compliance and to optimise water quality. Samples are collected by our trained field workers to ensure they are taken correctly and field results have a high degree of integrity. Laboratory analyses are carried out by our Australian Water Quality Centre in accordance with ISO 9001 Quality Systems and the requirements of the National Association of Testing Authorities.

The following table summarises routine monitoring and testing activities in our water supply systems in 2017-18.

Number of sample taps and test analytes – metropolitan, country and remote Aboriginal communities water supply systems, 2017-18

Drinking water systems	Metropolitan	Country	Remote Aboriginal Communities	Total
Supply systems	8	60	20	88
Customer taps	188	291	20	499
Catchment to tap sample taps*	373	950	117	1 440
Catchment to tap routine test analytes	79 102	288 743	5 104	372 949

* Includes drinking water customer taps

Drinking water quality and performance

In 2017-18, we demonstrated robust management of water quality by consistently providing safe, clean drinking water to our customers.

The following table summarises our performance for health-related parameters of routine samples at customer taps.

State-wide, metropolitan, country and remote Aboriginal communities drinking water supply systems health related performance, 2017-18

Health related parameters	State-wide systems (number of test analytes)	Metropolitan systems (number of test analytes)	Country systems (number of test analytes)	Remote Aboriginal Communities (number of test analytes)
Samples free from <i>E. coli</i>	99.97% (11 086)	99.97% (3 314)	99.99% (7 672)	99.00% (100)
Samples compliant with ADWG health parameters*#	99.85% (42 799) Target: 99.90%	99.94% (12 558) Target: 100%	99.84% (29 769) Target: 99.80%	98.73% (472) Target: 99.80%

* Percentage of routine results at customer taps within drinking water systems which comply with the ADWG health limits (including *E. coli*).

Direct exceedances of the ADWG were used rather than the 95th percentiles for compliance of individual chemical parameters.

Prior to calculating % compliance for health related chemicals individual results are rounded to the same number of significant figures as the guideline value in the ADWG (as prescribed in the ADWG and agreed with SA Health).

We analysed 42 799 routine test analytes from our drinking water supplies throughout South Australia to determine health related compliance.

- We achieved 99.97 per cent *E. coli* compliance across customer taps with one exception each in metropolitan, country and remote Aboriginal communities systems.
- Compliance with ADWG Health related parameters across customer taps was marginally below target at 99.85 per cent.

Although we aim for 100 per cent compliance, the ADWG recognises that occasional exceedances may occur. In accordance with the guidelines and the interagency *Water/Wastewater Incident Notification and Communication Protocol*, all detections were immediately communicated to SA Health, investigated by us and corrective actions implemented as agreed with SA Health.

SA Health has confirmed that drinking water provided to customers by us was safe and appropriate responses and corrective actions were implemented in all cases and these prevented any risks to public health.

The greatest challenge for metropolitan and country compliance is disinfection by-products due to a number of South Australian source waters containing large amounts of natural organic matter. We have identified these systems and are proactively implementing management strategies to address these situations.

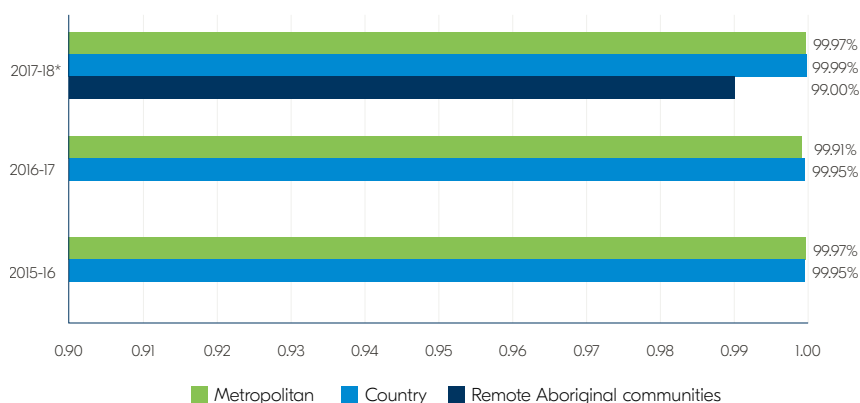
In 2017-18 we commissioned a granular activated carbon filtration plant within the Barossa Water Treatment Plant system. We continued to actively manage chlorine residuals in our drinking water systems without compromising disinfection, and optimised treatment processes and the length of time water is in pipes or tanks before it is used.



We also finalised planning for a staged conversion of the Myponga Water Treatment Plant system from chlorine to chloramine over 24 months starting with the Myponga township in October 2018.

In 2017-18, three of the four additional supplies we took on in remote Aboriginal communities do not currently meet all process requirements and health objectives of the *Safe Drinking Water Act 2011*. Having taken on the management of these supplies, and with planned investments in infrastructure upgrades during the coming three years, we are planning to improve the compliance and reliability of drinking water for the people living in these remote communities. As an interim step, in Nyapari we are now supplying cask water for drinking.

***E. coli* compliance at metropolitan, country and remote Aboriginal communities drinking water supply system customer taps since 2015 (customer tap samples free from *E. coli*).**



* For 2017-18, compliance in remote Aboriginal Communities is included in our reporting.



Effective Governance

Legislation

SA Water was established as a Public Corporation on 1 July 1995 under the *South Australian Water Corporation Act 1994*. SA Water's operations are guided by legislation, the most significant include:

- *South Australian Water Corporation Act 1994*
- *Public Corporations Act 1993*
- *Water Industry Act 2012*
- *Safe Drinking Water Act 2011*
- *South Australian Public Health Act 2011*
- *Work, Health and Safety Act 2012*
- *Environment Protection Act 1993*
- *Natural Resources Management Act 2004*.

Key regulators

The Essential Services Commission of South Australia is the independent economic regulator for the water industry. It sets service standards and revenue levels for water and sewerage services provided by us.

SA Health sets and monitors standards for drinking water quality and regulates recycled water use in the state.

The Office of the Technical Regulator sets standards and requirements for water and sewerage infrastructure, and the operation of that infrastructure, to ensure public safety.

The Environment Protection Authority sets standards for acceptable discharge from SA Water's used water treatment facilities and monitors our operations and activities to minimise impact on the environment.

The Department for Environment and Water regulates access to natural water sources, protects water catchments and native vegetation and is the state body responsible for the River Murray as part of the Murray-Darling Basin.

The Board

The Board is appointed under the *South Australian Water Corporation Act 1994* to govern the business on behalf of the South Australian Government, reporting to the Minister for Environment and Water. The Board sets the strategic direction and monitors performance, driving efficiency and protecting our long-term viability in accordance with the *Public Corporations Act 1993*.

The following Board directors, appointed by the Governor of South Australia, served during 2017-18:

- Sybella Blencowe
- Sue Filby
- Ian Stirling
- Hon. Carolyn Pickles (appointed Chair 28 November 2017 to 30 June 2018)
- Hon. Karlene Maywald
- Roch Cheroux.

Day-to-day management of the business is delegated by the Board through the Chief Executive to the Senior Leadership Team. Pursuant to section 18 of the *South Australian Water Corporation Act 1994*, the Minister has delegated authority to the Board of SA Water to approve procurements of up to \$10 million and expenditure up to \$4 million on any one project.

A charter prepared by the Minister and the Treasurer, in consultation with the Board, was in place for 2017-18 in accordance with section 12 of the *Public Corporations Act 1993*. The charter guided the Board in seeking to balance community service with prudent commercial principles.

Directors' interests and benefits

For 2017-18, no director had an interest in any contract or proposed contract with SA Water, other than contracts in the ordinary course of business. No benefits were received by any director of SA Water by virtue of a contract that was made with SA Water, other than in normal course of business as set out in the financial statements.

Board committees

The Board has established a committee structure to assist it in meeting its responsibilities. Each committee has a charter that guides its functions and duties and is reviewed annually.

Governance, Finance and Risk

Committee – supports and assists the Board in fulfilling its corporate governance and oversight responsibilities in relation to our financial planning and reporting, internal and external audit functions, internal control processes, risk management systems, legal compliance, and fraud control.

Policy and Strategy Committee – assists the Board's oversight of the long-term strategy of the corporation to ensure it remains a valuable, relevant and effective water and sewerage service provider with high levels of customer, community and stakeholder service and support.

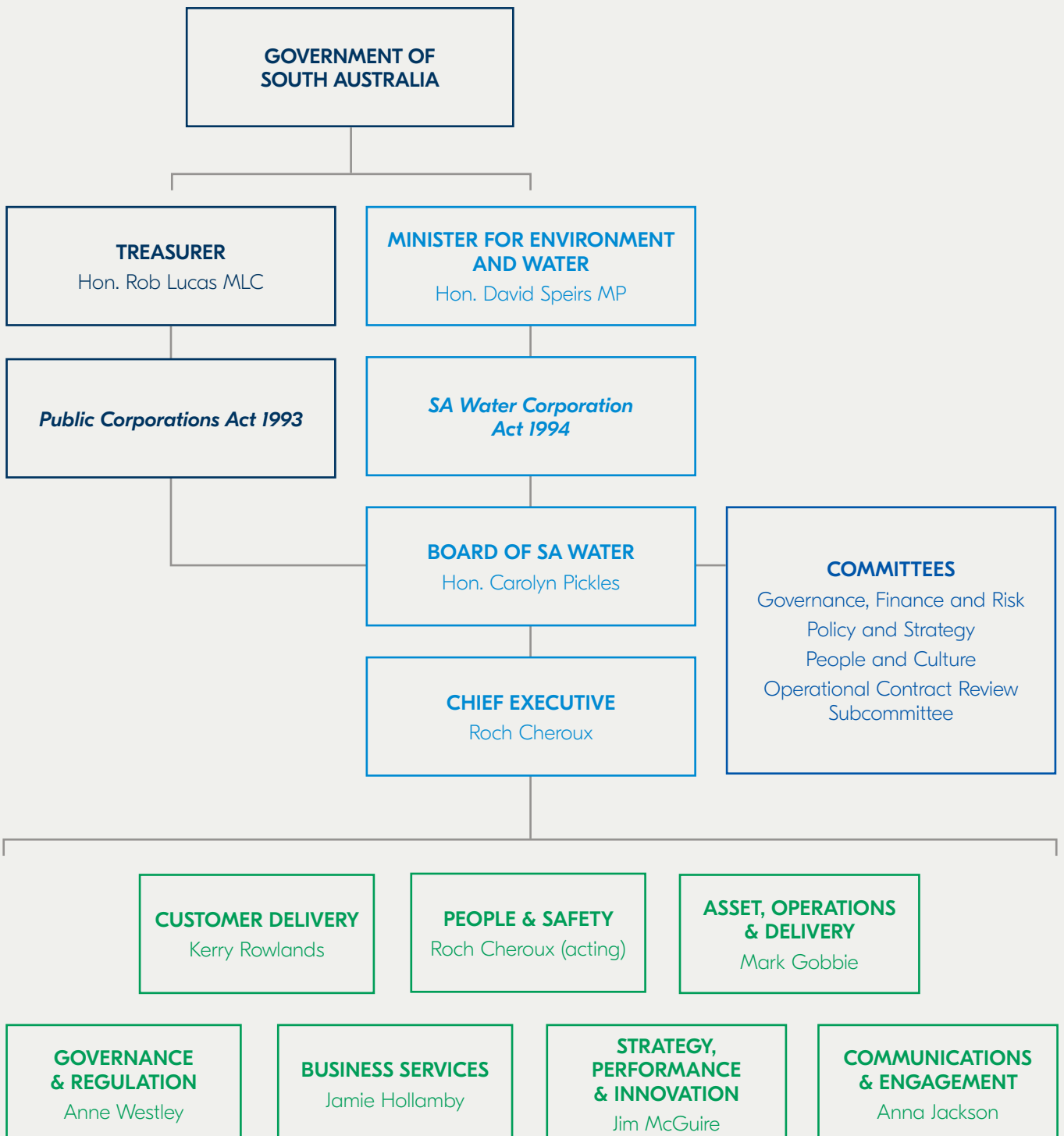
People and Culture Committee – supports and assists the Board on matters associated with workforce planning, remuneration and corporate culture, taking into account the strategy, government policy, relevant Board policies, business needs and regulatory requirements.

Operational Contract Review

Subcommittee – reporting to the Governance, Finance and Risk Committee, the subcommittee assisted the Board to assess approaches to operational services and capital delivery to ensure they continue to meet our vision and strategy.

Organisation structure

As at 30 June 2018







Financial Performance

Financial performance summary

The following is a brief summary of our overall financial performance.

The year-end profit before tax result is \$201.6 million which is \$7.1 million lower than the original budget. Excluding the \$38.0 million write-off relating to seasonal water allocations no longer available to us, the year-end result was \$239.6 million, an increase of \$30.9 million against original budget.

This result can be attributed to a number of factors including:

- higher operating revenues from an increase in water sales of \$12.5 million and an increase in fees and connections revenue of \$7.9 million
- other revenue considerations of \$42.0 million including sale of surplus renewable energy certificates, augmentation revenue and sale of surplus water allocations
- underlying operating expenditure savings of \$6.0 million; offset by
- accelerated depreciation and asset write offs of \$35.0 million relating to plant and equipment, infrastructure and capital work-in-progress, partially due to the accelerated capital works on the pipe network renewals
- other movements in revenue and expenditure of \$2.5 million.

Consultants

The following is a summary of external consultants engaged, and the nature and cost of the work undertaken.

Consultant	Amount	Description/purpose
Less than \$10 000		
Hender Careers	1 900.00	Outplacement services
SARDI – Department of Primary Industries and Regions	2 500.00	Project contribution to Northern Adelaide Plains Management Framework
Geomotion Australia	5 227.00	Pneumatic Piezos Investigations – field services
Communikate Et Al	7 875.00	Communications consultation services
Mercer Consulting (Australia)	9 600.00	Annual remuneration review and independent job classification
Between \$10 000 and \$50 000		
Marchmont Hill Consulting	10 144.45	Civil maintenance benchmarking program – analysis and comparison of reactive and planned maintenance activities
Due Diligence Consultants Pty Ltd	12 790.09	TRILITY Group change in control due diligence report
AMCL Pty Ltd	20 800.00	Asset management maturity review
Business Models Inc	32 000.00	Integrated utility model and corporate business planning
Turner & Townsend	40 459.00	Capital delivery process efficiency review
Greater than \$50 000		
Hudson Howells	57 851.82	Mount Barker agribusiness district/waste
Symbiosis Australia Pty Ltd	98 200.00	Asset inspections, mechanical and electrical, and Civil Structural Level 1 condition inspections, headworks and major pipelines asset management planning and sponsor support
Yellowscope Pty Ltd	165 687.18	Asset information change management planning and implementation support, integration of asset maintenance requirements into broader asset planning process
Total	465 034.54	

See also tenders.sa.gov.au/tenders/index.do for a list of all external consultancies, including nature of work and value. See also the Consolidated Financial Report of the Department of Treasury and Finance at treasury.sa.gov.au for total value of consultancy contracts across the SA Public Sector.



Supplementary Reporting Items

Fraud

There was one instance of alleged fraud detected in 2017-18. The matter was reported to the appropriate authorities.

Strategies implemented to control and prevent fraud

We have a zero tolerance to fraud.

We perform a range of activities to control and prevent fraud. Key to these activities is:

- senior executive oversight of our Fraud and Corruption Control Policy by the General Manager, Governance and Regulation
- investigations of all allegations of fraud made under the policy
- data analytic reviews of all payroll, accounts payable and corporate purchasing transactions by Internal Audit
- regular communications and reminders to our people of the need to report matters of concern and to act in accordance with our values and Code of Conduct.

Whistleblowers disclosure

Pursuant to section 7 of the *Public Sector Act 2009*, we have appointed Responsible Officers for the purposes of the *Whistleblowers Protection Act 1993*.

We received one whistleblower-related allegation during 2017-18.

Summary of complaints

We regard complaints as an opportunity to build and maintain customer confidence and trust, as well as improve our customer experience performance and operational efficiency.

We have a comprehensive approach to dealing with complaints, which includes a focus on first contact resolution with a dedicated team. Our Customer Advocacy and Resolution team is responsible for investigating and responding to complaints which were not able to be resolved on first contact.

In 2017-18, we registered 2.24 complaints per 1 000 customers. This is a decrease compared to 2.46 complaints per 1 000 customers in 2016-17. We continue to track below the national benchmark of 3.4, based on *2016-17 National performance reporting* data for major utilities. We will continue our focus on reducing this further in the coming year.

The most common complaint types relate to water quality, repairs and maintenance of infrastructure in the metropolitan area, and costs incurred for high water consumption.

In 2017-18, 196* complaints were made about us to the Energy and Water Ombudsman of South Australia (EWOSA) on a range of issues. Costs incurred for high water use continued to top the list of escalated concerns.

When compared to 2016-17, EWOSA complaints have seen a significant reduction of approximately 26 per cent from 264 complaints to 196*.

Our Customer Advocacy and Resolution team completes root cause analyses, post-complaint reviews and case studies, which is an important step in our complaint management process. Case studies include details of the complaint, a summary of the investigation, the outcome and process improvement recommendations.

In 2017-18, our Customer Advocacy and Resolution team provided customer insights from complaint management which initiated three large scale process improvement reviews with the view to improve the customer experience. Further formal case studies were presented to relevant business unit managers with process improvement recommendations.

Operations four year comparison data 2014-18

Data tracking our operations over the past four years is now available online through data.sa.gov.au, or via our website at sawater.com.au.

* The number of EWOSA complaints referred to us may differ between our reporting and EWOSA's due to variances in reporting practices.

DIRECTION TO THE SOUTH AUSTRALIAN WATER CORPORATION
PURSUANT TO SECTION 6 OF THE PUBLIC CORPORATIONS ACT 1993

BACKGROUND:

1. Pursuant to section 6 of the *Public Corporations Act 1993*, and sections 6 and 7(2)(f) of the *South Australian Water Corporation Act 1994*, the South Australian Water Corporation (SA Water) is subject to the control and direction by its Minister, and has the functions conferred on it by its Minister.
2. The *South Australian Water Corporation Act 1994* is committed to the Minister for Water and the River Murray (the Minister) by way of *Gazettal* notice dated 21 October 2011 (p. 4289).
3. The Minister considers it appropriate, in the interests of transparency, to direct SA Water to:
 - (a) provide common water treatment and delivery infrastructure necessary for Stage 1 of the Northern Adelaide Irrigation Scheme.

DIRECTION:

I, Ian Hunter, Minister for Water and the River Murray, direct SA Water to purchase or provide the following services, facilities and contributions from 1 July 2017 and until further notice, subject to and in accordance with the following provisions:

A. The Northern Adelaide Irrigation Scheme

To provide common water treatment and delivery infrastructure necessary to supply up to 12 gigalitres (GL) per year of additional recycled water from the Bolivar Water Treatment Plant to a new irrigation area north of the Gawler River.

Infrastructure required includes upgrade of the tertiary treatment plant to increase capacity by 12GL, the construction of the full capacity trunk pipe and pump systems for 2GL, managed aquifer recharge, and surface storage.

SA Water will fund capital expenditure in relation to such cost in each financial year:

2017-18	2018-19	2019-20	2020-21
\$40 100 000	\$45 000 000	\$22 300 000	\$2 600 000



The Hon Ian Hunter MLC
MINISTER FOR WATER AND THE RIVER MURRAY

23/8/2017



Appendices

South Australian Water Corporation
Annual Financial Statements for the
year ended 30 June 2018

INDEPENDENT AUDITOR'S REPORT



Government of South Australia
Auditor-General's Department

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To the Chair South Australian Water Corporation

As required by section 31(1)(b) of the *Public Finance and Audit Act 1987* section 32(4) of the *Public Corporations Act 1993*, I have audited the financial report of the South Australian Water Corporation for the financial year ended 30 June 2018.

Opinion

In my opinion, the accompanying financial report gives a true and fair view of the financial position of the South Australian Water Corporation as at 30 June 2018, its financial performance and its cash flows for the year then ended in accordance with the Treasurer's Instructions issued under the provisions of the *Public Finance and Audit Act 1987* and Australian Accounting Standards.

The financial report comprises:

- a Statement of Comprehensive Income for the year ended 30 June 2018
- a Statement of Financial Position as at 30 June 2018
- a Statement of Changes in Equity for the year ended 30 June 2018
- a Statement of Cash Flows for the year ended 30 June 2018
- notes, comprising a summary of significant accounting policies and other explanatory information
- a Certificate from the Chair, the Chief Executive and the General Manager Business Services.

Basis for opinion

I conducted the audit in accordance with the *Public Finance and Audit Act 1987* and Australian Auditing Standards. My responsibilities under those standards are further described in the 'Auditor's responsibilities for the audit of the financial report' section of my report. I am independent of the South Australian Water Corporation. The *Public Finance and Audit Act 1987* establishes the independence of the Auditor-General. In conducting the audit, the relevant ethical requirements of APES 110 Code of Ethics for Professional Accountants have been met.

I believe that the audit evidence obtained is sufficient and appropriate to provide a basis for my opinion.

Responsibilities of the Chief Executive and the Board for the financial report

The Chief Executive is responsible for the preparation of the financial report that gives a true and fair view in accordance with the Treasurer's Instructions issued under the provisions of the *Public Finance and Audit Act 1987* and Australian Accounting Standards, and for such internal control as management determines is necessary to enable the preparation of the financial report that gives a true and fair view and that is free from material misstatement, whether due to fraud or error.

In preparing the financial report, the Chief Executive is responsible for assessing the entity's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the entity is to be liquidated or to cease operations, or has no realistic alternative but to do so.

The Board is responsible for overseeing the entity's financial reporting process.

Auditor's responsibilities for the audit of the financial report

My objectives are to obtain reasonable assurance about whether the financial report as a whole is free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes my opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Australian Auditing Standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of this financial report.

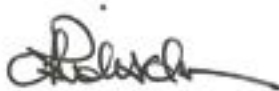
As part of an audit in accordance with Australian Auditing Standards, I exercise professional judgement and maintain professional scepticism throughout the audit. I also:

- identify and assess the risks of material misstatement of the financial report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for my opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control
- obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances
- evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Chief Executive

- conclude on the appropriateness of the entity's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the entity's ability to continue as a going concern
- evaluate the overall presentation, structure and content of the financial report, including the disclosures, and whether the financial report represents the underlying transactions and events in a manner that achieves fair presentation.

My report refers only to the financial report described above and does not provide assurance over the integrity of electronic publication by the entity on any website nor does it provide an opinion on other information which may have been hyperlinked to/from the report.

I communicate with the Chief Executive and the Board about, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that I identify during the audit.



Andrew Richardson

Auditor-General

21 September 2018

Certification of the Financial Statements

We certify that the:

- Financial statements of SA Water Corporation:
 - are in accordance with the accounts and records of the authority;
 - comply with relevant Treasurer's instructions;
 - comply with relevant accounting standards; and
 - present a true and fair view of the financial position of the authority at the end of the financial year and the result of its operations and cash flows for the financial year.
- Internal controls employed by SA Water Corporation over its financial reporting and its preparation of the financial statements have been effective throughout the financial year.



Roch Cheroux
Chief Executive



Jamie Hollamby
GM Business Services



Andrew Fletcher
Chair

Date 14TH SEPTEMBER 2018

South Australian Water Corporation
Statement of comprehensive income
For the year ended 30 June 2018

	Notes	2018 \$'000	2017 \$'000
Income			
Revenue from ordinary activities	5	1,474,497	1,361,773
Other income	6	22,499	7,758
Total income		<u>1,496,996</u>	<u>1,369,531</u>
Expenses			
Depreciation and amortisation expense	7	(356,774)	(327,013)
Borrowing costs	7	(329,500)	(336,634)
Electricity expense		(62,063)	(43,125)
Services and supplies		(234,742)	(161,587)
Operational and service contracts		(184,920)	(184,982)
Employee benefits expense		(127,433)	(127,664)
Total expenses		<u>(1,295,432)</u>	<u>(1,181,005)</u>
Profit before income tax equivalents		201,564	188,526
Income tax expense	8	(58,357)	(54,171)
Profit after income tax equivalents		<u>143,207</u>	<u>134,355</u>
Other comprehensive income			
<i>Items that will not be reclassified to net result</i>			
Gain on revaluation of infrastructure, plant and equipment assets	29(a)	99,920	89,871
Revaluation of available-for-sale financial assets		-	4,609
Income tax relating to components of other comprehensive income	8(c)	(27,390)	(26,461)
Other comprehensive income for the year, net of tax		<u>72,530</u>	<u>68,019</u>
Total comprehensive result		<u>215,737</u>	<u>202,374</u>
Total comprehensive result for the year is attributable to:			
The SA Government as owner		<u>215,737</u>	<u>202,374</u>

The above statement of comprehensive income should be read in conjunction with the accompanying notes.

South Australian Water Corporation
Statement of financial position
As at 30 June 2018

	Notes	2018 \$'000	2017 \$'000
ASSETS			
Current assets			
Cash and cash equivalents	26	3,966	2,450
Receivables	9	203,138	218,558
Inventories	10	9,118	8,412
Other financial assets	11	21	874
Tax receivables	19	-	5,659
Other current assets	12	20,469	12,611
Total current assets		<u>236,712</u>	<u>248,564</u>
Non-current assets			
Available-for-sale financial assets	13	-	35,170
Deferred tax assets	14	40,169	45,480
Intangible assets	15	151,094	179,618
Infrastructure, plant and equipment	16	13,888,709	13,685,909
Other non-current assets		280	-
Total non-current assets		<u>14,080,252</u>	<u>13,945,157</u>
Total assets		<u>14,316,964</u>	<u>14,194,721</u>
LIABILITIES			
Current liabilities			
Payables	17	210,294	203,769
Financial liabilities/borrowings	18	39,118	39,235
Tax liabilities	19	10,167	-
Provisions	20	17,027	16,737
Other current liabilities	21	15,913	33,277
Total current liabilities		<u>292,519</u>	<u>293,018</u>
Non-current liabilities			
Payables		2,304	2,296
Financial liabilities/borrowings	22	6,462,021	6,406,165
Deferred tax liabilities	23	1,662,569	1,673,790
Provisions	24	29,469	29,790
Other non-current liabilities	25	361,466	370,871
Total non-current liabilities		<u>8,517,829</u>	<u>8,482,912</u>
Total liabilities		<u>8,810,348</u>	<u>8,775,930</u>
Net assets		<u>5,506,616</u>	<u>5,418,791</u>
EQUITY			
Contributed equity		185,110	173,610
Asset revaluation surplus	29(a)	5,049,757	4,989,256
Retained earnings	29(b)	271,749	255,925
Total equity		<u>5,506,616</u>	<u>5,418,791</u>

The above statement of financial position should be read in conjunction with the accompanying notes.

South Australian Water Corporation
Statement of changes in equity
For the year ended 30 June 2018

Notes	Asset			Total \$'000
	Contributed equity \$'000	revaluation surplus \$'000	Retained earnings \$'000	
Balance at 1 July 2017	173,610	4,989,256	255,925	5,418,791
Profit for the year	-	-	143,207	143,207
Gain on revaluation on infrastructure, plant and equipment assets	29	99,920	-	99,920
Transfer to retained profits on disposal	29	(12,029)	-	(12,029)
Transfer from asset revaluation surplus	29	-	12,029	12,029
Income tax relating to components of other comprehensive income	8(c)	(27,390)	-	(27,390)
Total comprehensive result for the period	-	60,501	155,236	215,737
Transactions with the SA Government in their capacity as owners:				
Contributions of equity*	33	11,500	-	11,500
Dividends provided for or paid	33	-	(139,412)	(139,412)
	33	11,500	(139,412)	(127,912)
Balance at 30 June 2018	33	185,110	5,049,757	271,749

Notes	Asset			Total \$'000
	Contributed equity \$'000	revaluation surplus \$'000	Retained earnings \$'000	
Balance at 1 July 2016	173,610	4,923,535	312,309	5,409,454
Profit for the year	-	-	134,355	134,355
Gain on revaluation on infrastructure, plant and equipment assets	29	89,871	-	89,871
Revaluation of available-for-sale financial assets	29	4,609	-	4,609
Transfer to retained profits on disposal	29	(2,298)	-	(2,298)
Transfer from asset revaluation surplus	29	-	2,298	2,298
Income tax relating to components of other comprehensive income	8(c)	(26,461)	-	(26,461)
Total comprehensive result for the period	-	65,721	136,653	202,374
Transactions with the SA Government in their capacity as owners:				
Dividends provided for or paid	33	-	(193,037)	(193,037)
Balance at 30 June 2017	33	173,610	4,989,256	255,925

* In 2017/18, SA Water received \$11.5m from the SA Government, to partially fund the Northern Adelaide Irrigation Scheme (NAIS) project, after completing the first milestone of the NAIS project. In accordance with Interpretation 1038 Contributions by Owners made to Wholly-Owned Public Sector Entities, this has been recognised as contributed equity.

The above statement of changes in equity should be read in conjunction with the accompanying notes.

South Australian Water Corporation
Statement of cash flows
For the year ended 30 June 2018

Notes	2018 \$'000	2017 \$'000
Cash flows from operating activities		
Receipts from customers	1,372,647	1,239,778
Payments to suppliers and employees	(632,411)	(586,674)
Interest received	55	88
Receipts from community service obligations	144,193	130,780
Receipts from contributions	10,826	8,368
Receipts from government grants	155	45
Borrowing costs paid	(333,100)	(313,500)
Income tax equivalents paid	(75,851)	(83,493)
Net cash inflow from operating activities	27 486,514	395,392
Cash flows from investing activities		
Payments for construction and purchase of infrastructure, plant and equipment	(406,263)	(280,926)
Payments for intangible assets	(31,658)	(19,263)
Proceeds from sale of intangible assets	3,304	1,546
Proceeds from sale of infrastructure, plant and equipment	297	675
Proceeds from sale of renewable energy certificates	21,495	8,319
Net cash (outflow) from investing activities	(412,825)	(289,649)
Cash flows from financing activities		
Proceeds from borrowings	867,500	1,011,900
Repayment of borrowings	(801,800)	(916,500)
Proceeds from equity contributions	11,500	-
Dividends paid	33 (139,412)	(193,037)
Repayments of finance lease liability	(9,961)	(8,904)
Net cash (outflow) from financing activities	(72,173)	(106,541)
Net increase/(decrease) in cash and cash equivalents	1,516	(798)
Cash and cash equivalents at the beginning of the financial year	2,450	3,248
Cash and cash equivalents at end of period	26 3,966	2,450

The above statement of cash flows should be read in conjunction with the accompanying notes.

1 Summary of significant accounting policies

The South Australian Water Corporation ("SA Water" or the "Corporation") was established on 1 July 1995, as a State owned statutory corporation by the *South Australian Water Corporation Act 1994*, to which the provisions of the *Public Corporations Act 1993* apply. SA Water provides retail water supply and sewerage services in accordance with its licence, provided by the *Water Industry Act 2012* (the Act) which came into operation on 1 July 2012. The Act repealed the *Waterworks Act 1932*, *Sewerage Act 1929* and *Water Conservation Act 1936*.

The Corporation has prepared these financial statements in compliance with section 23 of the *Public Finance and Audit Act 1987*.

The financial statements are general purpose financial statements. The accounts have been prepared in accordance with relevant Australian Accounting Standards and comply with Treasurer's Instructions and Accounting Policy Statements promulgated under the provisions of the *Public Finance and Audit Act 1987*.

The Corporation has applied Australian Accounting Standards that are applicable to for profit entities, as the Corporation is a for profit entity.

(a) *Basis of preparation*

These general purpose financial statements have been prepared in accordance with Australian Accounting Standards and interpretations issued by the Australian Accounting Standards Board and the *Corporations (South Australia) Act 2001*. South Australian Water Corporation is a for-profit entity for the purpose of preparing the financial statements.

The Corporation's Statement of Comprehensive Income, Statement of Financial Position and Statement of Changes in Equity have been prepared on an accrual basis and are in accordance with the historical cost convention, except for infrastructure, plant and equipment, available-for-sale financial assets, derivative financial instruments and renewable energy certificates which are measured on a fair value basis in accordance with the valuation policy applicable.

The financial statements have been prepared based on a twelve month period and presented in Australian dollars.

The accounting policies set out below have been applied in preparing the financial statements for the year ended 30 June 2018 and the comparative information presented.

The financial statements are authorised for issue by the Board.

Change in accounting policy

There were no changes in accounting policy during the financial period.

South Australian Water Corporation
Notes to the consolidated financial statements
30 June 2018
(continued)

1 Summary of significant accounting policies (continued)

(a) *Basis of preparation (continued)*

Comparative information

The presentation and classification of items in the financial statements are consistent with prior periods except where specific accounting standards and/or accounting policy statements have required a change.

Where presentation or classification of items in the financial statements have been amended, comparative figures have been adjusted to conform to changes in presentation or classification in these financial statements unless impracticable.

The restated comparative amounts do not replace the original financial statements for the preceding period.

Rounding

All amounts in the financial statements and accompanying notes have been rounded to the nearest thousand dollars (\$'000) unless otherwise stated.

(b) *Taxes*

SA Water is liable for income tax equivalents, land tax and council rate equivalents, payroll tax, fringe benefits tax, goods and services tax (GST) and emergency services levy.

Income tax equivalents

From 1 July 2001, the Corporation has operated under the National Tax Equivalent Regime (NTER) pursuant to the Memorandum of Understanding on NTER between the Commonwealth of Australia, the Commissioner of Taxation and all of the States and Territories. The NTER is administered by the Australian Taxation Office.

Income tax expense is calculated in accordance with AASB 112 *Income Taxes* using the balance sheet liability method. The income tax expense for the period is the tax payable on the current period's taxable income measured at the current national income tax rate adjusted for permanent differences and movements in deferred tax assets and liabilities.

Deferred tax assets and liabilities are recognised for temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the financial statements. The measurement of deferred tax assets and liabilities reflects the tax consequences that would follow from the manner in which the Corporation expects, at the reporting date, to recover or settle the carrying amount of its assets and liabilities. Deferred tax assets and liabilities are recognised at the tax rates expected to apply when the assets are recovered or liabilities are settled. Current and deferred tax is recognised as an expense in the Statement of Comprehensive Income except where it relates to items that are credited or debited to equity, in which case the deferred tax is also recognised directly in equity.

Deferred tax assets are recognised to the extent that it is probable that future tax profits will be available against which deductible temporary differences can be utilised.

Land tax and council rate equivalents

The charge for land tax and council rate equivalents has been calculated by Revenue SA, based on valuations supplied by the Valuer General.

Goods and services tax

Income, expenses and assets are recognised net of the amount of GST except:

1 Summary of significant accounting policies (continued)

(b) *Taxes (continued)*

Goods and services tax (continued)

- when the GST incurred on a purchase of goods or services is not recoverable from the Australian Taxation Office, in which case the GST is recognised as part of the cost of acquisition of the asset or as part of the expense item applicable; and
- receivables and payables, which are stated with the amount of GST included.

The net amount of GST recoverable from, or payable to, the Australian Taxation Office is included as part of receivables or payables in the Statement of Financial Position.

Cash flows are included in the Statement of Cash Flows on a gross basis and the GST component of cash flows arising from investing and financing activities, which is recoverable from, or payable to, the Australian Taxation Office is classified as part of operating cash flows.

South Australian Water Corporation
Notes to the consolidated financial statements
30 June 2018
(continued)

1 Summary of significant accounting policies (continued)

(c) *New accounting standards and interpretations*

The Corporation did not voluntarily change any of its accounting policies during 2017-2018.

Australian accounting standards and interpretations that have recently been issued or amended but are not yet effective, have not been adopted by the Corporation for the period ending 30 June 2018.

AASB 16 Leases will apply for the first time to the 30 June 2020 financial report. The amended standard introduces a single accounting model for lessees, eliminating the distinction between operating and finance leases. The standard will require SA Water to recognise assets and liabilities for all leases with a term of more than 12 months, unless the underlying asset is of low value. The lease liability will be initially recognised at an amount equal to the present value of the lease payments during the lease term that are not yet paid. The income statement (statement of profit or loss and other comprehensive income) will show the lease expense as depreciation (relating to the Right of Use asset) and interest relating to the lease liability rather than rent expense being shown as an operating expense. The finance charge will be recognised as an expense. SA Water has commenced its identification of leases that will need to be recognised however this will not be finalised till mid 2018/19. The leases that have been identified include accommodation and motor vehicles.

AASB 15 Revenue from Contracts with Customers will replace the existing *AASB 118 Revenue* and will apply for the first time to the 30 June 2019 financial report. *AASB 15 Revenue from Contracts with Customers* introduces a five step process for revenue recognition with the core principle being to recognise revenue 'when control of a good or service transfers to a customer'. This is effectively when performance obligations have been met, rather than under the existing model of 'where the risk and rewards of ownership reside'. The Corporation has completed its assessment of the impact of this standard and the result is that there will be nil impact on the amount and timing of when revenue is recognised.

The revised *AASB 9 Financial Instruments* will apply for the first time to the 30 June 2019 financial report. This provides the principles for the classification, measurement, recognition, de-recognition and disclosures associated with financial assets and liabilities. The key changes include simplified requirements for classification and measurement of financial assets and a revised impairment loss model which will recognise impairment losses earlier as opposed to the current approach that recognises impairment losses only when incurred. The Corporation has reviewed the profit and loss impact of this accounting standard, and the impact of this is an estimated increase in allowance for doubtful debts of approximately \$2m.

AASB 1059 Service Concession Arrangements: Grantors will apply for the first time to the 30 June 2020 financial report. This standard will be applicable to public-private partnerships (PPPs) which involve the private sector (the operator) providing public services related to a service concession arrangement on behalf of the public sector (the grantor) and the operator managing at least some of those services under its own discretion rather than at the direction of the grantor. The two most common PPPs used by government for service concession arrangements are the availability and user pay structures. The availability structure type of arrangement is currently recognised as a finance lease asset and finance lease liability once the asset is constructed and becomes available for use. The Corporation has completed its assessment of the impact of this standard and the result is that the existing finance lease assets of \$98m for water and sewer infrastructure will be reclassified from leased water and sewer infrastructure assets to water and sewer service concession assets.

2 Financial risk management

(a) Market risk

(i) Interest rate risk exposures - financial liabilities

The Corporation's financial liabilities are exposed to interest rate risk. The Corporation constantly analyses its interest rate exposure and consideration is given to potential renewals of existing positions and the use of alternative risk mitigation strategies. To minimise interest rate volatility, the Corporation enters into forward starting loans (FSLs) with the South Australian Financing Authority (SAFA) where it agrees to borrow specified amounts in the future at a pre-determined interest rate. FSLs are non-derivative financial instruments which are outside the scope of AASB139 *Financial Instrument Recognition and Measurement*, and disclosed as unrecognised fixed rate loan commitments. Refer note 2(c).

A key component of the Corporation's interest rate risk management framework is the requirement for a permissible duration range to be maintained, which reflects the average term to maturity of the Corporation's core debt portfolio. The permissible duration range is 2.1-4.9 years.

The following sensitivity analysis is based on the interest rate risk exposures in existence at the balance date, assuming all other variables are held constant. The movements in post tax profit and equity for the year are due to higher/lower interest costs from floating rate debt and cash balances. The movement in interest expense is estimated by applying the interest rate movement to the balance of floating rate debt and cash balances outstanding at balance date.

At 30 June 2018 it has been assumed that a reasonable possible shift in interest rates over the next reporting period could be 0.5% upwards and 0.5% downwards.

	Carrying amount \$'000	Interest rate risk -0.5%		+0.5%	
		Profit \$'000	Equity \$'000	Profit \$'000	Equity \$'000
30 June 2018					
Financial assets					
Cash and cash equivalents	3,966	(14)	(14)	14	14
Financial liabilities					
Short term borrowings	(27,974)	98	98	(98)	(98)
Total increase/(decrease)		<u>84</u>	<u>84</u>	<u>(84)</u>	<u>(84)</u>

	Carrying amount \$'000	Interest rate risk -0.5%		+0.5%	
		Profit \$'000	Equity \$'000	Profit \$'000	Equity \$'000
30 June 2017					
Financial assets					
Cash and cash equivalents	2,450	(9)	(9)	9	9
Financial liabilities					
Short term borrowings	(29,274)	102	102	(102)	(102)
Total increase/(decrease)		<u>93</u>	<u>93</u>	<u>(93)</u>	<u>(93)</u>

South Australian Water Corporation
Notes to the consolidated financial statements
30 June 2018
 (continued)

2 Financial risk management (continued)

(a) Market risk (continued)

(ii) Electricity price risk exposures

The Corporation has established a multi-faceted risk management framework incorporating an overarching Energy Price Risk Management Policy to manage its energy exposure in the wholesale National Electricity Market.

Energy portfolio management activities to mitigate the associated financial risk include demand management, electricity self-generation and financial market hedging.

The Corporation monitors its energy consumption profile and uses permitted electricity derivatives where the pre-determined risk limits have been exceeded, to manage its exposure to electricity spot prices on energy purchases.

The following sensitivity analysis is based on electricity price risk exposures in existence at balance date assuming all other variables are held constant. The movements in post-tax profit and equity for the year are due to higher/lower electricity costs associated with electricity purchased at a floating market price.

For 2016/17, it has been assumed that a reasonable possible change in the relevant forward prices for wholesale electricity prices over the next reporting period could be 10% upwards and 10% downwards. Sensitivity of 10% is based on industry standards and historical volatilities in the electricity pool prices. At 30 June 2018 sensitivity analysis was not applicable as the accounting value of electricity derivative was not subject to any market movements.

	Carrying amount \$'000	Electricity price risk -10%		+10%	
		Profit \$'000	Equity \$'000	Profit \$'000	Equity \$'000
30 June 2018					
Financial assets					
Derivative financial instruments (electricity)	21	-	-	-	-
Total increase/(decrease)		-	-	-	-

	Carrying amount \$'000	Electricity Price Risk -10%		+10%	
		Profit \$'000	Equity \$'000	Profit \$'000	Equity \$'000
30 June 2017					
Financial assets					
Derivative financial instruments (electricity)	874	19	19	(19)	(19)
Total increase/(decrease)		19	19	(19)	(19)

(b) Credit risk

Credit risk is the risk of financial loss to the Corporation resulting from the failure of a customer or a counterparty to a financial instrument to meet its financial obligations as and when they fall due.

Credit management policies and procedures are in place to ensure an appropriate level of due diligence in relation to credit history and financial integrity for financial transactions undertaken by SA Water. In addition, receivable balances are monitored on an ongoing basis and actions to recover outstanding debt are instigated in accordance with the Corporation's collection policies and practices with the result that exposure to bad debts is not significant.

2 Financial risk management (continued)

(b) Credit risk (continued)

Under the Water Industry Act 2012, water rates and charges are secured via a first charge on the property.

The Corporation has no significant concentration of credit risk.

All borrowings are directly undertaken by SAFA on behalf of the Corporation. The Corporation does not hold any credit derivatives to offset its credit exposure.

Electricity derivatives are entered into on organised exchanges and with highly rated financial counterparties.

(c) Liquidity risk

The Corporation has in place a Treasury Risk Management Policy to provide a prudential framework for managing liquidity risk. SA Water is required to hold in cash or committed facilities appropriate capacity to meet immediate funding requirements and provide any unforeseen cash flow needs. Liquidity levels are reviewed on a daily basis.

Contractual maturities

The table below analyses the Corporation's financial liabilities into the relevant groupings based on the remaining period at the reporting date to the contractual maturity date. The amounts disclosed are the future contractual undiscounted cash flows. The contractual cash flows for fixed rate and floating rate borrowings include principal, interest, guarantee fees and SAFA margins.

Maturing borrowings are included in the table at their maturity date and are refinanced at prevailing market interest rates. Fixed rate borrowings are interest only with no fixed repayment date for the principal component. Any principal component of fixed rate borrowings that has already been refinanced prior to the reporting date via forward starting loans (FSLs) is excluded from the relevant maturity grouping. The future cash flows relating to FSLs are separately disclosed in the table below as unrecognised fixed rate loan commitments.

At 30 June 2018	Less than 1 year \$'000	Between 1 and 2 years \$'000	Between 2 and 5 years \$'000	Over 5 years \$'000	Total contractual cash flows \$'000
Non-derivatives					
Non-interest bearing liabilities*	122,456	-	-	-	122,456
Fixed rate borrowings	968,606	1,988,898	1,057,815	3,412,888	7,428,207
Floating rate borrowings	27,949	-	-	-	27,949
Unrecognised fixed rate loan commitments**	8,549	18,815	56,400	494,030	577,794
Finance lease liabilities	23,266	23,266	50,976	11,076	108,584
Total non-derivatives	1,150,826	2,030,979	1,165,191	3,917,994	8,264,990

South Australian Water Corporation
Notes to the consolidated financial statements
30 June 2018
(continued)

2 Financial risk management (continued)

(c) *Liquidity risk (continued)*

	Less than 1 year \$'000	Between 1 and 2 years \$'000	Between 2 and 5 years \$'000	Over 5 years \$'000	Total contractual cash flows \$'000
At 30 June 2017					
Non-derivatives					
Non-interest bearing liabilities*	105,170	-	-	-	105,170
Fixed rate borrowings	507,153	1,050,070	2,775,638	2,504,424	6,837,285
Floating rate borrowings	29,253	-	-	-	29,253
Unrecognised fixed rate loan commitments**	20,147	40,402	121,241	1,058,298	1,240,088
Finance lease liabilities	22,981	22,981	56,208	27,969	130,139
Total non-derivatives	684,704	1,113,453	2,953,087	3,590,691	8,341,935

* Non-interest bearing liabilities disclosed are financial liabilities at cost and exclude amounts relating to statutory payables such as tax equivalents and commonwealth tax.

** The principal component relating to FSLs that was refinanced prior to reporting date has been excluded from the less than 1 year category, and included in the over 5 years category in which the FSLs will mature.

2 Financial risk management (continued)

(d) Fair value measurements

The fair value of financial assets and financial liabilities is the price that would be received to sell the asset or paid to transfer a liability in an orderly transaction between market participants at the balance date.

(i) Fair value of financial liabilities

The fair value for long term borrowings is estimated by discounting the anticipated future cash flows to their present value based on current market interest rates at the respective balance dates.

A reliable estimate of the fair value for finance leases cannot be determined due to the unique nature of the leasing arrangements. Refer note 18(b).

The carrying amounts and fair values of long term borrowings at balance date are:

	2018		2017	
	Carrying amount \$'000	Fair value \$'000	Carrying amount \$'000	Fair value \$'000
Long term borrowings	6,413,000	6,575,893	6,346,000	6,552,020

The fair values of all other financial liabilities approximate the carrying values.

(ii) Fair value of financial assets

The Corporation no longer holds investments in unlisted class B shares as the underlying assets were transferred to infrastructure assets with a transfer date of 1 January 2018. These assets were measured at fair value which were estimated using the depreciated replacement cost based on the modern equivalent model that is consistent with SA Water's valuation methodology.

The carrying amounts and fair values of available-for-sale financial instruments at balance date are:

	2018		2017	
	Carrying amount \$'000	Fair value \$'000	Carrying amount \$'000	Fair value \$'000
Unlisted shares	-	-	35,170	35,170

The fair values of all other financial assets approximate the carrying values.

South Australian Water Corporation
Notes to the consolidated financial statements
30 June 2018
(continued)

3 Fair value measurements

The Corporation measures and recognises the following financial and non-financial assets at fair value on a recurring basis:

- Financial assets (note 11);
- Available-for-sale financial assets (note 13);
- Land and buildings (note 16);
- Leased water and sewer infrastructure (note 16);
- Water infrastructure (note 16);
- Sewer infrastructure (note 16);
- Plant and equipment (note 16); and
- Other property, plant and equipment (note 16).

(a) *Fair value measurements*

AASB 13 *Fair Value Measurement* requires disclosure of fair value measurements by level of the following fair value measurement hierarchy (consistent with the hierarchy applied to financial assets and financial liabilities):

- (a) quoted prices (unadjusted) in active markets for identical assets or liabilities (level 1);
- (b) inputs other than quoted prices included within level 1 that are observable for the asset or liability, either directly or indirectly (level 2); and
- (c) inputs for the asset or liability that are not based on observable market data (unobservable inputs) (level 3).

The following table presents the Corporation's financial and non-financial assets measured and recognised at fair value at 30 June 2018.

(i) *Recognised fair value measurements*

30 June 2018	2018 \$'000	Level 1 \$'000	Level 2 \$'000	Level 3 \$'000
Recurring fair value measurements				
Financial assets				
Electricity derivatives	21	21	-	-
Total financial assets	21	21	-	-
Non-financial assets				
Buildings	23,154	-	-	23,154
Land	375,508	-	375,508	-
Water infrastructure	8,719,434	-	-	8,719,434
Sewer infrastructure	4,243,714	-	-	4,243,714
Plant and equipment and other	127,151	-	-	127,151
Total non-financial assets	13,488,961	-	375,508	13,113,453
Total recurring financial and non-financial assets	13,488,982	21	375,508	13,113,453

South Australian Water Corporation
Notes to the consolidated financial statements
30 June 2018
(continued)

3 Fair value measurements (continued)

(a) *Fair value measurements (continued)*

(i) *Recognised fair value measurements (continued)*

30 June 2017	2017 \$'000	Level 1 \$'000	Level 2 \$'000	Level 3 \$'000
Recurring fair value measurements				
Financial assets				
Electricity derivatives	874	874	-	-
Unlisted shares	35,170	-	-	35,170
Total financial assets	36,044	874	-	35,170
Non-financial assets				
Buildings	23,848	-	-	23,848
Land	367,996	-	367,996	-
Water infrastructure	8,709,210	-	-	8,709,210
Sewer infrastructure	4,102,385	-	-	4,102,385
Plant and equipment and other	119,313	-	-	119,313
Total non-financial assets	13,322,752	-	367,996	12,954,756
Total recurring financial and non-financial assets	13,358,796	874	367,996	12,989,926

There were no transfers between levels for recurring fair value measurements during the period.

The Corporation's policy is to recognise transfers into and transfers out of fair value hierarchy levels as at the end of the reporting period.

(ii) *Disclosed fair values*

The Corporation has a number of assets and liabilities which are not measured at fair value, but for which fair values are disclosed in the notes.

The carrying amounts of cash and cash equivalents, trade receivables, payables and other current liabilities are assumed to approximate their fair values due to their short-term nature. SA Water does not hold any non-current receivables.

The fair value of financial instruments that make up the long term borrowings disclosed in note 2d(i) have been deemed to be Level 2 in the Fair Value Hierarchy. The valuation is based on SAFA bond rates (market observable) which reflects the cost of funds. The carrying amount of short term borrowings approximates its fair value, as the impact of discounting is not significant.

(b) *Valuation techniques used to derive level 3 fair values*

(i) *Recurring fair value measurements*

The valuation techniques used to derive level 3 fair values are described in note 16.

Although unobservable inputs were used in determining fair value, and are subjective, the Corporation considers that the overall valuation would not be materially affected by changes to the existing assumptions. There were no changes in valuation techniques during the reporting period.

(ii) *Non-recurring fair value measurements*

SA Water has no non-recurring fair value measurements.

South Australian Water Corporation
Notes to the consolidated financial statements
30 June 2018
(continued)

3 Fair value measurements (continued)

(b) *Valuation techniques used to derive level 3 fair values (continued)*

(ii) *Non-recurring fair value measurements (continued)*

(c) *Fair value measurements using significant unobservable inputs (level 3)*

The following tables are reconciliations of fair value measurements for recurring fair value measurements using significant unobservable inputs (level 3):

	Buildings \$'000	Water Infrastructure \$'000	Sewer Infrastructure \$'000	Plant and Equipment and Other \$'000	Available-for-Sale Financial Assets \$'000	Total \$'000
Opening balance at 1 July 2017	23,848	8,709,210	4,102,385	119,313	35,170	12,989,926
Acquisitions	2,208	210,390	152,934	28,751	-	394,283
Transfers	-	-	35,170	-	(35,170)	-
Disposals	-	-	-	(36)	-	(36)
Total gain (losses) for the period in the net result:						
Asset write-off	-	(15,352)	(10,849)	-	-	(26,201)
Depreciation	(3,679)	(216,473)	(91,538)	(24,092)	-	(335,782)
	<u>(3,679)</u>	<u>(231,825)</u>	<u>(102,387)</u>	<u>(24,092)</u>	<u>-</u>	<u>(361,983)</u>
Total gain (losses) for the period in other comprehensive income:						
Revaluation increment/ (decrement)	777	31,659	55,612	3,215	-	91,263
	<u>777</u>	<u>31,659</u>	<u>55,612</u>	<u>3,215</u>	<u>-</u>	<u>91,263</u>
Closing balance 30 June 2018	<u>23,154</u>	<u>8,719,434</u>	<u>4,243,714</u>	<u>127,151</u>	<u>-</u>	<u>13,113,453</u>

South Australian Water Corporation
Notes to the consolidated financial statements
30 June 2018
(continued)

3 Fair value measurements (continued)

(c) *Fair value measurements using significant unobservable inputs (level 3) (continued)*

	Buildings \$'000	Water Infrastructure \$'000	Sewer Infrastructure \$'000	Plant and Equipment and Other \$'000	Available-for-Sale Financial Assets \$'000	Total \$'000
Opening balance at 1 July 2016	20,883	8,704,568	3,985,921	110,566	30,561	12,852,499
Acquisitions	5,457	185,079	151,860	27,813	-	370,209
Disposals	-	-	-	(487)	-	(487)
Total gain (losses) for the period in the net result:						
Asset write-off	-	(5,548)	(5,368)	-	-	(10,916)
Depreciation	(2,819)	(198,517)	(88,362)	(19,992)	-	(309,690)
	<u>(2,819)</u>	<u>(204,065)</u>	<u>(93,730)</u>	<u>(19,992)</u>	-	<u>(320,606)</u>
Total gain (losses) for the period in other comprehensive income:						
Revaluation increment/ (decrement)	327	23,628	58,334	1,413	4,609	88,311
	<u>327</u>	<u>23,628</u>	<u>58,334</u>	<u>1,413</u>	<u>4,609</u>	<u>88,311</u>
Closing balance 30 June 2017	<u>23,848</u>	<u>8,709,210</u>	<u>4,102,385</u>	<u>119,313</u>	<u>35,170</u>	<u>12,989,926</u>

(i) *Valuation inputs and relationships to fair value*

Refer note 16 for information relating to unobservable inputs and valuation processes.

South Australian Water Corporation
Notes to the consolidated financial statements
30 June 2018
(continued)

4 Critical accounting estimates and judgements

The preparation of financial statements requires the use of certain critical accounting estimates. It also requires management to exercise judgement in the process of applying the Corporation's accounting policies.

Estimates and judgements are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances. Revisions to accounting estimates are recognised in the period in which the estimate is revised and in any future periods affected.

In particular, the areas involving a higher degree of judgement or complexity, or areas where assumptions and estimates are significant to the financial statements, are listed below:

- Unbilled revenue (refer note 5);
- Contributed assets (refer note 5);
- Impairment of assets (refer note 16);
- Valuation and useful lives of assets (refer note 16, 7);
- Provision for long service leave (refer note 24); and
- Provision for workers compensation (refer note 24).

South Australian Water Corporation
Notes to the consolidated financial statements
30 June 2018
(continued)

5 Revenue from ordinary activities

	2018 \$'000	2017 \$'000
Community service obligations	144,788	136,092
Water and sewer rates and charges	1,165,734	1,075,714
Recoverable works	55,368	49,191
Fees and charges	48,290	41,988
Miscellaneous	119	236
Amortisation of government grant revenue	9,466	9,352
Contributed assets	49,154	47,701
Rents	1,515	1,464
Interest	63	35
	<u>1,474,497</u>	<u>1,361,773</u>

Water and sewer rates and charges

Revenue from water usage is based on water consumed throughout the year by customers. The annual water and sewer rates charges for a financial year are earned and billed during that financial year.

SA Water sets its annual water and sewer prices in line with the revenue caps for water and sewer services set by the Essential Services Commission of South Australia's (ESCOSA's) Final Price Determination.

SA Water accrues the consumption and associated revenue that is calculated to have been consumed throughout the year. The underlying revenue recognition principle is to recognise revenue in the period it is earned, rather than billed. The calculation is based on state-wide water supplied, customer billing information, and an assessment of non-revenue water (non-revenue water includes water produced and then lost or unaccounted for, such as evaporation, firefighting and leaks).

Community service obligations (CSOs)

The Corporation is required under its charter to provide a number of non commercial services to the community on behalf of the Government. The Government provides SA Water with funding to compensate for these non commercial activities. The main CSOs relate to under recovery of country water and sewer services (due to the requirement for state wide pricing) and the provision of water and sewer concessions to certain properties e.g. charities, churches, public schools and remote communities.

The CSO revenue is recognised as the services are provided.

Contributed assets

Contributed assets principally arise from:

- (i) Customers who make a contribution where a service or connection has been requested which requires construction of a new main; and
- (ii) Developers who make contributions where either:
 - a) water and sewer infrastructures are constructed by developers and transferred to SA Water. The contribution recognised is equivalent to the fair value of these assets that is estimated using the depreciated modern equivalent replacement cost ; or
 - b) the Corporation constructs the infrastructure at the developer's request.

South Australian Water Corporation
Notes to the consolidated financial statements
30 June 2018
(continued)

5 Revenue from ordinary activities (continued)

Contributed assets (continued)

Contributed assets that are constructed by developers and gifted to SA Water for nil value, are recognised as contributed asset revenue when the ownership of the constructed assets is transferred to SA Water.

Cash contributions received by SA Water to construct assets for customers are recognised as unearned revenue upon receipt. Revenue is subsequently recognised as earned when the constructed assets are practically completed.

Recoverable works

Revenue derived from the provision of services to external parties is recognised to the extent that it is probable that the economic benefits will flow to the Corporation and the revenue can be reliably measured.

Government grants

In accordance with *AASB 120 Accounting for Government Grants and Disclosure of Government Assistance*, grants from the Government are recognised at their fair value when there is reasonable assurance that the grant will be received and the Corporation will comply with all attached conditions to the grant.

Government grants relating to construction of infrastructure, plant and equipment are initially recognised as unearned revenue (current and non-current liability) and then transferred to income over the periods, and in the proportions, in which depreciation on those assets is charged.

6 Other income

	2018 \$'000	2017 \$'000
Net gain on disposal of infrastructure, plant and equipment	262	75
Net gain on disposal of temporary water allocations	3,266	1,523
Reversal of prior year infrastructure, plant and equipment revaluation decrement	651	253
Net gain on disposal of renewable energy certificates	18,330	5,907
	<u>22,499</u>	<u>7,758</u>

The gain or loss on disposal of non-current assets is recognised at the date that control of the asset passes to the buyer. The gain or loss on disposal is calculated as the difference between the carrying amount of the asset at the time of the disposal and net proceeds from the sale. Upon disposal or derecognition, any asset revaluation surplus relating to a particular asset being sold is transferred to retained earnings.

South Australian Water Corporation
Notes to the consolidated financial statements
30 June 2018
(continued)

7 Expenses

	2018 '000	2017 '000
Profit before income tax includes the following specific expenses:		
Depreciation (note 16)		
Buildings	3,679	2,819
Plant and equipment	2,486	2,478
Other	21,606	17,516
Infrastructure assets - sewer	91,538	88,362
Infrastructure assets - water	216,473	198,517
Amortisation (note 15)		
Computer software	19,292	15,623
ADP intangible	1,700	1,700
Total depreciation and amortisation	<u>356,774</u>	<u>327,013</u>
Borrowing costs		
Interest paid/payable on short term and long term borrowings	321,877	327,954
Finance charges on capitalised leases	7,623	8,680
Total borrowing costs	<u>329,500</u>	<u>336,634</u>
Net loss from electricity derivatives at fair value through profit and loss	1,110	72
Finance lease contingent rentals	5,500	5,235
Operating lease minimum lease payments	12,856	12,064
Net bad and doubtful debts (recovery)/expense including movements in allowance for doubtful debts	2,411	(5,742)
Infrastructure, plant and equipment revaluation decrement	1,818	3
Write-off in value of infrastructure, plant, equipment, and capital WIP	31,841	14,322
Write-off in value of purchased seasonal water allocations	37,959	-
Consultancy costs		
Less than \$10,000 (Number 2018: 6; 2017: 2)	31	7
Between \$10,000 and \$50,000 (Number 2018: 8; 2017: 8)	168	247
Greater than \$50,000 (Number 2018: 3; 2017: 1)	266	276
	<u>465</u>	<u>530</u>
Superannuation contribution	17,415	17,788

South Australian Water Corporation
Notes to the consolidated financial statements
30 June 2018
(continued)

7 Expenses (continued)

Superannuation

The amount charged to the Statement of Comprehensive Income represents the contributions made by the Corporation to the superannuation plan in respect of employment services of current staff. The contributions are made to the state government superannuation scheme and several non-state government superannuation schemes. With relation to the state government superannuation scheme, the Department of Treasury and Finance centrally recognises the superannuation liability in the whole of government financial statements.

Depreciation

Infrastructure, buildings, plant and equipment and other assets are depreciated using the straight line method over their estimated useful lives ranging from 2 to 170 years. The useful lives of assets are reviewed annually and have been assessed as follows:

Class of assets	Useful life (years)
- Water and sewer	7 - 170 years
- Water and sewer leased assets	20 - 50 years
- Buildings	50 years
- Other	2 - 50 years
- Plant and equipment	3 - 15 years

The method of depreciation has regard to the underlying nature of the assets and their expected use in operations of the Corporation. Work in progress is not depreciated until assets are completed and have been commissioned for operation.

Borrowing costs

Borrowing costs include interest expense, government guarantee fees, South Australian Finance Authority (SAFA) margins and finance lease charges.

In accordance with the *Accounting Policy Framework (APF) // General Purpose Financial Statements Framework* and *AASB 123 Borrowing Costs*, borrowing costs attributable to the acquisition or construction of infrastructure, plant and equipment are capitalised after considering materiality.

The Corporation has not capitalised borrowing costs in the year as the proportion related to the acquisition and construction of infrastructure was assessed as not material.

Leases are classified at their inception as either operating or finance leases based on the economic substance of the agreement in order to reflect the risks and benefits incidental to ownership.

Operating leases

Minimum lease payments of operating leases, where the lessor effectively retains substantially all of the risks and benefits of ownership of the leased items, are recognised as an expense in the Statement of Comprehensive Income. Equal payments are made over the accounting periods covered by the lease term, except where an alternative basis is more representative of the pattern of benefits to be derived from the leased property.

Finance leases

Leases for infrastructure assets, where substantially all the risks and benefits incidental to ownership of the asset but not the legal ownership are assumed by the Corporation, are classified as finance leases (refer note 18, 22). Finance leases are capitalised and depreciated over the useful life of the asset in accordance with *AASB 117 Leases*.

7 Expenses (continued)

Finance leases (continued)

The Corporation has previously entered into Build Own Operate Transfer (BOOT) agreements for a number of infrastructure facilities. These BOOT agreements include the requirement for an ongoing availability tariff, as escalated over time by certain indices, for the term of the agreement.

BOOT agreements have been classified as finance leases, with a lease asset and lease liability being recognised upon commissioning of the underlying asset. The lease asset is brought to account at the fair value of the underlying assets constructed. The equivalent liability is recognised at the present value of the future availability charges. These have been determined at the inception of the lease and do not take account of any future estimated escalation.

Variation between the availability charges determined at the inception of the lease and the actual availability charges are brought to account as contingent rentals in accordance with AASB 117. Availability charges are allocated between interest expense and a reduction in the lease liability, with the interest expense calculated using the interest rate implicit in the lease and charged directly to the Statement of Comprehensive Income.

South Australian Water Corporation
Notes to the consolidated financial statements
30 June 2018
(continued)

8 Income tax expense

(a) *Income tax expense*

	2018 \$'000	2017 \$'000
Current tax	91,675	68,313
Deferred tax	(33,320)	(13,880)
Amounts (over)/under provided in prior years	2	(262)
	<u>58,357</u>	<u>54,171</u>
Deferred income tax (revenue) included in income tax expense comprises:		
Decrease in deferred tax assets (note 14)	4,545	1,534
(Decrease) in deferred tax liabilities (note 23)	(37,865)	(15,414)
	<u>(33,320)</u>	<u>(13,880)</u>

(b) *Numerical reconciliation of income tax expense to prima facie tax payable*

	2018 \$'000	2017 \$'000
Profit from continuing operations before income tax expense	201,564	188,526
Tax at the Australian tax rate of 30.0% (2017: 30.0%)	60,469	56,558
Tax effect of amounts which are not deductible (taxable) in calculating taxable income:		
Loss on sale of land	-	19
ADP intangible asset amortisation	510	510
Government grants	(2,618)	(2,618)
Provision for employee benefits	(6)	(36)
	<u>58,355</u>	<u>54,433</u>
Amounts (over)/under provided in prior years	2	(262)
Income tax expense	<u>58,357</u>	<u>54,171</u>

South Australian Water Corporation
Notes to the consolidated financial statements
30 June 2018
(continued)

8 Income tax expense (continued)

(c) *Tax expense (income) relating to items of other comprehensive income*

	2018 \$'000	2017 \$'000
Gain on revaluation of infrastructure, plant and equipment	27,390	25,078
Revaluation of investment in unlisted shares	-	1,383
	<u>27,390</u>	<u>26,461</u>

9 Current assets - Receivables

	2018 \$'000	2017 \$'000
Receivables		
Rates receivable (water and sewer)	155,212	170,518
Sundry debtors	28,987	29,704
Allowance for doubtful debts	(32)	(40)
	<u>184,167</u>	<u>200,182</u>
Other receivables		
Community Service Obligations	18,971	18,376
	<u>203,138</u>	<u>218,558</u>

Receivables for rates and charges and sundry debtors are normally settled within 21 days. These are recognised in the accounts as amounts due. Collectability of receivables is reviewed on an ongoing basis. An allowance for doubtful debts is raised based on a review of outstanding amounts at balance date.

Bad debts are written off when they are identified.

(a) *Impaired trade receivables*

An allowance for impairment loss is recognised when there is objective evidence that an individual receivable is impaired.

The ageing of these receivables is as follows:

	2018 \$'000	2017 \$'000
More than 90 days overdue	32	40

South Australian Water Corporation
Notes to the consolidated financial statements
30 June 2018
(continued)

9 Current assets - Receivables (continued)

(a) *Impaired trade receivables (continued)*

Movements in the provision for impairment of receivables are as follows:

Opening balance at 1 July	40	6,064
Provision for impairment recognised during the year	13	12
Amounts written off	(10)	(15)
Amounts reversed	(11)	(6,021)
Closing balance at 30 June	32	40

(b) *Past due but not impaired*

At 30 June, the aging of rates receivable that are past due but not impaired is as follows:

	2018 \$'000	2017 \$'000
Up to 3 months	22,949	24,861
More than 3 months	16,829	19,850
	39,778	44,711

The other balances within rates receivables do not contain impaired assets and are not past due. It is expected that these amounts will be received when due. The carrying amount of past due rates receivables with renegotiated terms at balance date is \$15.091m (2017: \$11.824m).

At 30 June, the aging of sundry debtors that are past due but not impaired is as follows:

	2018 \$'000	2017 \$'000
Up to 1 month	1,572	2,767
More than 1 month	1,401	1,540
	2,973	4,307

The remaining balances within sundry debtors do not contain impaired assets and are not past due. It is expected that these amounts will be received when due. The carrying amount of past due sundry debtors with renegotiated terms at balance date is \$0.884m (2017: \$0.971m).

Balances for other receivables relate to Community Service Obligations and do not contain impaired assets and are not past due. It is expected that these balances will be received when due.

(c) *Fair value and credit risk*

Due to the short-term nature of the current receivables, their carrying amount is assumed to approximate their fair value.

The maximum exposure to credit risk at the end of the reporting period is the carrying amount of each class of receivables mentioned above. Refer to note 2 for more information on the risk management policy of the Corporation and the credit quality of the Corporation's receivables.

South Australian Water Corporation
Notes to the consolidated financial statements
30 June 2018
 (continued)

10 Current assets - Inventories

	2018 \$'000	2017 \$'000
Raw materials and stores	7,861	6,995
Allowance for obsolete stock	(257)	(356)
Work in progress	1,514	1,773
	<u>9,118</u>	<u>8,412</u>

Inventories are valued at the lower of cost and net realisable value. The cost of goods and services, if any, manufactured by SA Water are on a full absorption cost basis.

Inventories are held for purposes of maintenance and construction and not for resale.

11 Current assets - Financial assets

	2018 \$'000	2017 \$'000
Electricity derivatives		
Settlement residue auction units	21	623
Electricity futures contracts	-	251
Total current derivative financial instrument assets	<u>21</u>	<u>874</u>

The Corporation's Treasury Risk Management Policy and Energy Price Risk Management Policy provide a prudential framework for the management of the Corporation's financial risks including interest rate risk, foreign exchange price risk and commodity price risk. Within the parameters of the Corporation's Treasury Risk Management and Energy Price Risk Management Policies, SA Water utilises derivative financial instruments for foreign exchange and commodity price risk to implement appropriate financial risk mitigation strategies. Interest rate risk arising from borrowings is managed in accordance with the debt management strategies outlined in note 2(a)(i).

Electricity derivatives and non-derivatives

Electricity price risk represents the risk of unfavourable movements in wholesale electricity prices which could adversely impact the Corporation's electricity costs. The Corporation uses a combination of derivative and non-derivative financial instruments to economically manage electricity price risk and to mitigate against exposure to fluctuations in wholesale electricity spot prices.

Permitted electricity derivatives include exchange traded futures and settlement residue auction units.

Non-derivative forward contracts are treated as executory contracts and are not within the scope of AASB 139 *Financial Instruments: Recognition and Measurement*. The Corporation is prohibited from the selling and early termination of derivative and non-derivative financial instruments.

South Australian Water Corporation
Notes to the consolidated financial statements
30 June 2018
 (continued)

11 Current assets - Financial assets (continued)

Accounting for derivatives

Derivative financial instruments are initially recognised at fair value on the date on which a derivative contract is entered into and are subsequently remeasured to fair value.

All derivatives are categorised as financial assets or financial liabilities at fair value through profit and loss and classified as economic hedges in the Statement of Financial Position as the Corporation has elected not to apply hedge accounting under *AASB 139 Financial Instruments: Recognition and Measurement*.

Derivatives are carried as financial assets when their fair value is positive and as financial liabilities when their fair value is negative. Any changes in the fair value of derivatives are recognised immediately as an adjustment to other income or other expenses in the Statement of Comprehensive Income.

Electricity derivatives are remeasured to fair value with reference to published market prices and quotations.

Consistent with SA Water's treasury and energy policies, derivative financial instruments are transacted as economic hedges of cash flow exposures and are not held for speculative purposes.

12 Current assets - Other current assets

	2018 \$'000	2017 \$'000
Interest receivable	39	32
Prepayments	9,114	9,657
Renewable Energy Certificates *	10,923	2,922
Lease incentive asset	60	-
Australian Carbon Credits	333	-
	<u>20,469</u>	<u>12,611</u>

*SA Water purchases Renewable Energy Certificates (RECs) as well as generate RECs, in order to meet Green House Gas (GHG) emission targets. Unused RECs accumulated as at 30 June are recorded at their fair value and expected to be utilised in satisfying the Corporation's GHG emission targets.

South Australian Water Corporation
Notes to the consolidated financial statements
30 June 2018
(continued)

13 Non-current assets - Available-for-sale financial assets

	2018 \$'000	2017 \$'000
Unlisted shares at fair value	-	35,170

The Corporation was a participant to the funding arrangements for the Virginia Pipeline Scheme (VPS). SA Water's involvement in this scheme resulted in an option at the end of the contract to acquire the scheme or the underlying assets. The scheme distributes "Class A" reclaimed water from the Bolivar Wastewater Treatment Plant throughout the Virginia region for the irrigation of seasonal crops and fixed plantings. As part of the arrangement, the Corporation made advances to the operating company of VPS, Water Reticulation Systems (Virginia) Pty Ltd (WRS), a subsidiary of Euratech Limited. Advances to WRS were converted to non voting class B shares, issued at a price of \$1 per share.

The Corporation's investment in the non voting class B shares had been measured at fair value, in accordance with *AASB 139 Financial Instruments: Recognition and Measurement*. Due to the nexus between the class B shares and the pipeline assets, the fair value of the shares was determined using the projected written down current cost of the pipeline assets in 2018 discounted to net present value. The VPS was designated as an available-for-sale financial asset and all subsequent gains or losses arising from the changes in fair value are recognised in the available-for-sale revaluation surplus. The methodology of valuation of VPS was independently reviewed by Leadenhall VRG Pty Ltd in 2009, and no change to the valuation method has occurred since that review.

On 1 January 2018 under the terms of the arrangement the pipeline assets were transferred to SA Water and simultaneously the non-voting class B shares were derecognised. As a result of this derecognition, the fair value of the pipeline assets were recognised as Infrastructure, plant and equipment and the accumulated available-for-sale revaluation surplus was transferred to the Infrastructure, plant and equipment revaluation surplus.

South Australian Water Corporation
Notes to the consolidated financial statements
30 June 2018
(continued)

14 Non-current assets - Deferred tax assets

	2018 \$'000	2017 \$'000
The balance comprises temporary differences attributable to:		
Doubtful debts	10	12
Obsolete stock	77	107
Infrastructure, plant and equipment	12,096	11,388
Pooled assets	78	103
Payables	1,385	1,364
Audit fee payable	122	121
Government grants	11,250	11,413
Employee benefits	12,844	12,722
Deferred lease incentives	213	253
Unearned customer contributions	(858)	4,176
Unearned income	122	228
Provision for asset disposal	12	18
Provision for workers compensation	176	193
Derivative financial liability	27	-
	<u>37,554</u>	<u>42,098</u>
 <i>Amounts recognised directly in equity</i>		
Unearned customer contributions	2,335	2,335
Revaluation of Infrastructure, plant and equipment	280	1,027
Total deferred tax assets	<u>40,169</u>	<u>45,460</u>
	2018	2017
	\$'000	\$'000
Movements:		
Opening balance at 1 July	45,460	45,967
Charged to the statement of comprehensive income (note 8)	(4,545)	(1,534)
Charged to equity (note 29)	(746)	1,027
Closing balance at 30 June	<u>40,169</u>	<u>45,460</u>
 Deferred tax assets expected to be recovered within 12 months	 7,561	 12,454
Deferred tax assets expected to be recovered after more than 12 months	<u>32,608</u>	<u>33,006</u>
	<u>40,169</u>	<u>45,460</u>

South Australian Water Corporation
Notes to the consolidated financial statements
30 June 2018
(continued)

15 Non-current assets - Intangible assets

	Easements \$'000	Prescription rights \$'000	Computer software \$'000	ADP Intangible \$'000	Purchased water rights \$'000	Seasonal Water Allocations \$'000	Total \$'000
Year ended 30 June 2018							
Opening net book amount	6,213	4,500	38,896	61,274	30,776	37,959	179,618
Additions	-	-	20,222	-	10,205	-	30,427
Amortisation charge	-	-	(19,292)	(1,700)	-	-	(20,992)
Write off	-	-	-	-	-	(37,959)	(37,959)
Closing net book amount	6,213	4,500	39,826	59,574	40,981	-	151,094
At 30 June 2018							
Cost	6,213	4,500	198,770	70,982	40,981	-	321,446
Accumulated amortisation	-	-	(158,944)	(11,408)	-	-	(170,352)
Net book amount	6,213	4,500	39,826	59,574	40,981	-	151,094

South Australian Water Corporation
Notes to the consolidated financial statements
30 June 2018
(continued)

15 Non-current assets - Intangible assets (continued)

	Easements \$'000	Prescription rights \$'000	Computer software \$'000	ADP Intangible \$'000	Purchased water rights \$'000	Seasonal Water Allocations \$'000	Total \$'000
Year ended 30 June 2017							
Opening net book amount	6,213	4,500	31,302	62,974	30,776	37,959	173,724
Additions	-	-	23,217	-	-	-	23,217
Amortisation charge	-	-	(15,623)	(1,700)	-	-	(17,323)
Closing net book amount	6,213	4,500	38,896	61,274	30,776	37,959	179,618
At 30 June 2017							
Cost	6,213	4,500	178,547	70,982	30,776	37,959	328,977
Accumulated amortisation	-	-	(139,651)	(9,708)	-	-	(149,359)
Net book amount	6,213	4,500	38,896	61,274	30,776	37,959	179,618

15 Non-current assets - Intangible assets (continued)

Issued water licences

The South Australian Government has issued water licences to the Corporation under the relevant Water Allocation Plan for the water resource given effect by the *Natural Resources Management (NRM) Act 2004 (SA)*. Some of these licences have conditions attached which restrict the use of the allocations endorsed thereon. In applying *AASB 138 Intangible Assets*, the Corporation has concluded that a reliable estimate of the fair value of these water licences cannot be determined because there are no active markets for the rights endorsed on the licences. As there is no active market, these licences are held by the Corporation at nominal value.

SA Water holds issued water licences for prescribed water resources in the following regions:

Rights other than those relating to the River Murray are:

- Various South East Region licences;
- Various Murray Mallee Area licences;
- Various Eyre Peninsula Region licences;
- McLaren Vale licence for the Aldinga Wastewater Treatment Plant;
- Northern Adelaide Plains licence for the Bolivar Wastewater Treatment Plant;
- Western Mount Lofty Ranges licences; and
- Far North region licences.

River Murray water rights are conferred via multiple instruments:

- River Murray licence for metropolitan Adelaide; and
- River Murray licence for country towns.

Purchased water rights

The Corporation owns a series of tradable water rights that it has purchased. The rights are perpetual and title is held by the Corporation under the relevant legislation in the jurisdiction of issue (as water access entitlements onto licences issued by the South Australian Government under the *NRM Act 2004 (SA)*, as water shares issued by the Victorian Government under the *Water Act 1989 (VIC)*, and as unit shares issued by the New South Wales Government under the *Water Management Act 2000 (NSW)*). These rights comprise:

- River Murray entitlements under the *NRM Act 2004 (SA)*;
- Goulburn Zone 1A and Murray Zone 7 high reliability water shares held under the *Water Act 1989 (VIC)*; and
- NSW Murray Regulated River high security unit shares held under the *Water Management Act 2000 (NSW)*.

The allocations made to these water rights are able to be transferred within the Southern Murray Darling Basin including South Australia.

In accordance with the requirements of *APF III Asset Accounting Framework* covering valuation of intangible assets, the water rights are valued at cost. The water rights have an indefinite useful life and as such are not subject to amortisation.

South Australian Water Corporation
Notes to the consolidated financial statements
30 June 2018
(continued)

15 Non-current assets - Intangible assets (continued)

Seasonal water allocations

In addition to the permanent water rights above, during 2008/09 and 2009/10 the Government granted approval for SA Water to purchase seasonal water allocations to be used for critical human water needs in future years. SA Water also purchased water allocations for operational needs. Prior to June 2012 the Government had approved the water allocations being preserved beyond 2011/12 and retained as a reserve to meet critical human water needs in future years. These purchased water allocations are held as other assets in the accounts and are expensed as the water is used. In 2015/16, a permanent reduction in available water of 52 GL was recorded as an expense in SA Water's 2015/16 financial statements with a remaining balance of 120GL. In 2017/18, a permanent reduction in the remaining water allocation of 120 GL was recognised as an expense in SA Water's 2017/18 financial statements.

Prescription of the Mount Lofty Ranges

SA Water has previously contributed towards the prescription of the water resources for the Mount Lofty Ranges to provide long term protection of the water supply to Adelaide. In June 2013 SA Water was issued a licence pertaining to storage and diversion rights for streams in the Western Mount Lofty Ranges.

Easements

In accordance with *APF III Asset Accounting Framework*, easements are classified as an intangible asset and valued at cost. Easements gifted to the Corporation are not valued.

Application software

Application software is valued at cost as per *AASB 138 Intangible Assets*. The useful life is reviewed annually and has been assessed at 5 years. The software is amortised using the straight line method.

ADP intangible asset

An intangible asset exists in relation to the network connection agreement between SA Water and SA Power Networks. The agreement grants the Corporation the legal right to connect to the SA Power Networks substation constructed at Port Stanvac and thus acquire electricity for the Adelaide Desalination Plant (ADP) at the rates specified in the agreement.

In accordance with *AASB 138 Intangible Assets*, this right was recognised in 2012/13 as an intangible asset and is measured at the construction cost of the SA Power Networks' substation.

The useful life is based on the average useful life of the ADP assets belonging to SA Water upon which the intangible asset is dependent as per *AASB 138 Intangible Assets*. As with other non-current assets, the useful life of the intangible asset is assessed annually and is currently 41.75 years. The ADP intangible asset is amortised using the straight line method.

South Australian Water Corporation
Notes to the consolidated financial statements
30 June 2018
(continued)

16 Non-current assets - Infrastructure, plant and equipment

	Work in progress \$'000	Land \$'000	Buildings \$'000	Leased sewer infrastructure \$'000	Plant and equipment \$'000	Water infrastructure \$'000	Sewer infrastructure \$'000	Leased water infrastructure \$'000	Other property, plant and equipment \$'000	Total \$'000
Year ended 30 June 2018										
Opening net book amount	363,157	367,996	23,848	22,585	20,235	8,632,851	4,079,800	75,359	99,078	13,685,909
Revaluation surplus	-	7,491	777	735	-	29,171	54,877	2,488	3,215	98,754
Additions	444,326	21	2,208	209	2,824	210,089	152,725	301	25,927	838,630
Transfers	(402,095)	-	-	-	-	-	35,170	-	-	(366,925)
Depreciation charge	-	-	(3,679)	(830)	(2,486)	(212,217)	(90,708)	(4,256)	(21,606)	(335,782)
Asset write down	(5,640)	-	-	-	-	(15,352)	(10,849)	-	-	(31,841)
Disposals	-	-	-	-	(36)	-	-	-	-	(36)
Closing net book amount	399,748	375,508	23,154	22,699	20,537	8,644,542	4,221,015	74,892	106,614	13,888,709
At 30 June 2018										
Cost	399,748	375,508	93,757	32,386	51,270	14,986,229	7,068,003	201,901	319,280	451,018
Valuation	-	-	-	-	-	-	-	-	-	-
Accumulated depreciation	-	-	(70,603)	(9,687)	(30,733)	(6,341,687)	(2,846,988)	(127,009)	(212,676)	(9,639,383)
Net book amount	399,748	375,508	23,154	22,699	20,537	8,644,542	4,221,015	74,892	106,614	13,888,709

South Australian Water Corporation
Notes to the consolidated financial statements
30 June 2018
(continued)

16 Non-current assets - Infrastructure, plant and equipment (continued)

	Work in progress \$'000	Land \$'000	Buildings \$'000	Leased sewer infrastructure \$'000	Plant and equipment \$'000	Water infrastructure \$'000	Sewer infrastructure \$'000	Leased water infrastructure \$'000	Other property, plant and equipment \$'000	Total \$'000
Year ended 30 June 2017										
Opening net book amount	422,989	359,094	20,883	23,021	20,069	8,617,090	3,962,900	87,478	90,497	13,604,021
Revaluation surplus	-	6,419	327	359	-	30,767	57,975	(7,139)	1,413	90,121
Additions	298,283	2,596	5,457	-	3,129	184,949	151,860	130	24,684	671,088
Transfers	(354,709)	-	-	-	-	-	-	-	-	(354,709)
Depreciation charge	-	-	(2,819)	(795)	(2,476)	(194,407)	(87,567)	(4,110)	(17,516)	(309,660)
Asset write down	(3,406)	-	-	-	-	(5,548)	(5,368)	-	-	(14,322)
Disposals	-	(113)	-	-	(487)	-	-	-	-	(600)
Closing net book amount	363,157	367,996	23,848	22,585	20,235	8,632,851	4,079,800	76,359	99,078	13,685,909
At 30 June 2017										
Cost	363,157	-	-	-	48,629	-	-	-	-	411,786
Fair value	-	367,996	88,662	31,163	-	14,747,938	6,789,615	195,244	284,195	22,504,813
Accumulated depreciation	-	-	(64,814)	(8,578)	(28,394)	(6,115,087)	(2,709,815)	(118,885)	(185,117)	(9,230,660)
Net book amount	363,157	367,996	23,848	22,585	20,235	8,632,851	4,079,800	76,359	99,078	13,685,909

South Australian Water Corporation
Notes to the consolidated financial statements
30 June 2018
(continued)

16 Non-current assets - Infrastructure, plant and equipment (continued)

(a) *Carrying amounts that would have been recognised*

If revalued assets were stated on the historical cost basis, the amounts would be as follows:

	2018 \$'000	2017 \$'000
Freehold land		
Cost	52,816	52,795
Net book amount	<u>52,816</u>	<u>52,795</u>
Buildings		
Cost	56,117	53,909
Accumulated depreciation	(31,352)	(27,919)
Net book amount	<u>24,765</u>	<u>25,990</u>
Leased sewer infrastructure		
Cost	18,792	18,792
Accumulation depreciation	(6,107)	(5,638)
Net book amount	<u>12,685</u>	<u>13,154</u>
Water infrastructure		
Cost	4,873,328	4,676,535
Accumulated depreciation	(1,232,161)	(1,137,467)
Net book amount	<u>3,641,167</u>	<u>3,539,068</u>
Sewer infrastructure		
Cost	2,443,426	2,302,023
Accumulated depreciation	(1,026,195)	(945,001)
Net book amount	<u>1,417,231</u>	<u>1,357,022</u>
Leased water infrastructure		
Cost	124,183	124,183
Accumulation depreciation	(76,046)	(73,467)
Net book amount	<u>48,137</u>	<u>50,716</u>
Other		
Cost	254,467	228,540
Accumulated depreciation	(161,357)	(142,924)
Net book amount	<u>93,110</u>	<u>85,616</u>

South Australian Water Corporation
Notes to the consolidated financial statements
30 June 2018
(continued)

16 Non-current assets - Infrastructure, plant and equipment (continued)

Infrastructure, plant and equipment

Acquisition

Items of infrastructure, plant and equipment are initially recorded at cost in accordance with AASB 116 *Property, Plant and Equipment*, and are depreciated as outlined below. Assets acquired under Build Own Operate Transfer (BOOT) agreements are brought to account when commissioned.

Subsequent costs are included in the asset's carrying amount or recognised as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the item will flow to the Corporation and the cost of the item can be measured reliably. All other repairs and maintenance are charged to the Statement of Comprehensive Income during the financial period in which they are incurred.

Valuations

To comply with the *Accounting Policy Framework III Asset Accounting Framework, AASB 13 Fair Value Measurement* and AASB 116 *Property, Plant and Equipment*, the Corporation has adopted the fair value method for measuring and reporting land and buildings and infrastructure assets in the Statement of Financial Position. Refer to note 3 for disclosures regarding fair value levels. The Corporation uses both independent valuation and Directors' valuation methods to measure fair value. Depending on the class, Directors' valuation is performed using the Producer Price Index (PPI) or current contract rates. PPI measures changes over time in the price of new construction outputs. The PPI used is the Australian Bureau of Statistics Index Number 3101 "Road and Bridge Construction South Australia". Current contract rates are based on recently determined market contract rates for supplying and installing equivalent assets or components.

The Corporation's valuation methodologies, for all major classes of infrastructure assets, are subject to independent review when a change in the valuation method occurs. In addition to this, a complete independent review of these methodologies was completed by Aqenta Consulting Pty Ltd in April 2015. This review endorsed how individual asset classes are classified and concluded the assumptions/positions adopted by SA Water in its valuation methodologies are reasonable.

Revaluation adjustments are taken to the asset revaluation surplus on a class basis, with the exception of land and buildings which are adjusted on an asset by asset basis.

Infrastructure assets

In the majority of cases, the fair value of SA Water's infrastructure assets is the lower of modern equivalent reproduction or replacement cost. The cost of replacing or reproducing excess capacity or over engineering of the asset is excluded from the value. The modern equivalent reproduction or replacement cost is determined through an independent valuation process. The valuation is then reduced to allow for the age of the asset.

Infrastructure assets were valued as follows:

- The unit rates for water mains/connections and sewer mains/connections, were independently determined by Aqenta Consulting as at 1 July 2017. These rates are applied to the actual lengths of pre-defined modern equivalent asset types for water mains and sewer mains.
- Other infrastructure assets are independently valued on a cyclical basis at least every 5 years. In the intervening periods the assets are indexed annually as at 1 July using the appropriate PPI. Assets independently valued during the financial period were water filtration plants, earth storages, reservoirs, water dosing stations and the Adelaide Desalination Plant by Aqenta Consulting as at 1 July 2017.

16 Non-current assets - Infrastructure, plant and equipment (continued)

Infrastructure, plant and equipment (continued)

Valuations (continued)

Infrastructure assets (continued)

The previous independent valuations were:

- Bores and wells, water pumping stations, water tanks, leased water treatment plants were independently valued as at 1 July 2016.
- Sewer pumping stations and buildings were independently valued as at 1 July 2015.
- Wastewater treatment plants were independently valued as at 1 July 2014.
- Water filtration plants were independently valued as at 1 July 2013.

Land and buildings

Land is independently valued at market value generally using valuations as at 1 July provided from the State Valuer General. In isolated cases, the Corporation may use independent valuations performed by an appropriately qualified valuer. The Valuer General uses site values of generically similar allotments to arrive at a unit rate used to assign a value to individual parcels. Rates depend on whether the site is residential, industrial or commercial.

Buildings are independently valued on a cyclical basis at least every 5 years. In the intervening periods the assets are indexed annually as at 1 July using the appropriate PPI. Buildings were last independently valued by Aquenta as at 1 July 2015.

Plant and equipment

Plant and equipment is valued at cost which is deemed to be its fair value.

Other property, plant and equipment

Other assets are valued at cost which is deemed to be its fair value and indexed annually using the PPI.

Work in progress

Work in progress is carried at cost which is deemed to be its fair value.

Impairment of assets

All non-current tangible and intangible assets are reviewed for indications of impairment at each reporting date. Where there is an indication of impairment, the recoverable amount is estimated. An amount by which the asset's carrying amount exceeds the recoverable amount is recorded as an impairment loss. For revalued assets any impairment loss is offset against the relevant asset revaluation surplus until fully extinguished with any remaining amount expensed in the Statement of Comprehensive Income.

The Corporation has reviewed its assets as at 30 June 2018. There were no indications of impairment.

South Australian Water Corporation
Notes to the consolidated financial statements
30 June 2018
(continued)

17 Current liabilities - Payables

	2018 \$'000	2017 \$'000
Interest payable	78,034	81,634
Trade creditors	121,792	109,191
Other creditors	10,468	12,944
	<u>210,294</u>	<u>203,769</u>

Liabilities, whether or not yet billed to the Corporation, are recognised as amounts to be paid in the future for goods and services received, including any related GST. Trade accounts payable are normally settled within 30 days.

18 Current liabilities - Financial liabilities/borrowings

	2018 \$'000	2017 \$'000
Lease liabilities note (note 30)	11,144	9,961
Short term borrowings	27,974	29,274
	<u>39,118</u>	<u>39,235</u>

The Corporation has a \$150m short term borrowing facility with SAFA, bearing interest at SAFA's daily cash rate.

(a) Risk exposures

Information regarding interest rate risk and liquidity risk exposure is set out in note 2.

(b) Fair value disclosures

Information about the security relating to each of the secured liabilities and the fair value of each of the borrowings is provided in note 2.

Due to the short term nature of these interest bearing liabilities, their carrying value is assumed to approximate their fair value. Refer to note 2.

South Australian Water Corporation
Notes to the consolidated financial statements
30 June 2018
(continued)

19 Current liabilities - Tax liabilities (receivables)

	2018 \$'000	2017 \$'000
Provision for current income tax movements during the year were as follows:		
Opening balance at 1 July	(5,659)	9,783
Income tax paid	(75,851)	(83,493)
Current year's income tax provision	91,675	68,313
Amounts (over)/under provided in prior years	2	(262)
	<u>10,167</u>	<u>(5,659)</u>

At 30 June 2017, the Corporation was due a refund of income tax equivalent operated under the National Tax Equivalent Regime. This amount has been recognised in the statement of financial position as a current tax receivable.

South Australian Water Corporation
Notes to the consolidated financial statements
30 June 2018
 (continued)

20 Current liabilities - Provisions

	2018 \$'000	2017 \$'000
Employee benefits	15,885	15,654
Asset disposal	40	60
Damages and claims	19	91
Workers compensation	1,083	932
	<u>17,027</u>	<u>16,737</u>

(a) *Movements in provisions*

Movements in each class of provision during the financial year, other than employee benefits, are set out below:

2018 Current	Asset disposal \$'000	Damages and claims \$'000	Workers compensation \$'000	Total \$'000
Opening balance at 1 July	60	91	932	1,083
Provisions recognised	-	946	1,069	2,015
Payments made during year	(20)	(1,018)	(990)	(2,028)
Re-measurement adjustments	-	-	72	72
Closing balance at 30 June	<u>40</u>	<u>19</u>	<u>1,083</u>	<u>1,142</u>

Provisions are recognised when the Corporation has a present obligation as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation.

Employee benefits

This includes liabilities for annual and long service leave. The annual leave and long service liability is expected to be payable within twelve months and is measured at the undiscounted amount expected to be paid when the liability is settled.

Asset disposal

A provision for the disposal and abandonment of assets is recognised when there is a present obligation to undertake further work to decommission surplus assets and ensure they are safe to the public and do not cause harm to the environment.

The estimated costs of site rehabilitation and decommissioning non-current assets are based on past experience and current market prices.

Damages and claims

A provision is recognised for claims against the Corporation relating to property damage, personal injury and civil liability.

The amounts measured and recorded for claims are based on estimates of specified claims and the probability that the Corporation will be required to settle the obligation. Previous claims history and the Crown Solicitor's Office advice is used in the determination of the liability.

20 Current liabilities - Provisions (continued)

Damages and claims

A provision is recognised for claims against the Corporation relating to property damage, personal injury and civil liability.

The amounts measured and recorded for claims are based on estimates of specified claims and the probability that the Corporation will be required to settle the obligation. Previous claims history and the Crown Solicitor's Office advice is used in the determination of the liability.

SA Water is insured under the South Australian Government's insurance and risk management arrangements with SAICORP. Under this agreement between SAICORP and SA Water, SAICORP will meet the cost of any civil liability claim made against SA Water subject to SA Water's selected deductible.

In addition, insurance arrangements are in place for construction works, travel insurance, and director and officer liabilities.

Workers compensation

The corporation is registered with ReturnToWorkSA as a government self-insurer and is responsible for the management and liability of all workers' compensation claims. The provision is for the estimated cost of ongoing payments to employees as required under current legislation. The Corporation's provision is an actuarial estimate of the outstanding liability as at 30 June 2018 provided by KPMG Actuarial Pty Ltd. SA Water is committed to early intervention and supportive of early return to work programs for our people.

21 Current liabilities - Other current liabilities

	2018 \$'000	2017 \$'000
Government grants	9,566	9,606
Lease incentives	134	134
Unearned income	5,032	22,129
Deposits from customers	1,181	1,408
	<u>15,913</u>	<u>33,277</u>

22 Non-current liabilities - Financial liabilities/borrowings

	2018 \$'000	2017 \$'000
Lease liabilities (note 30)	49,021	60,165
Long term borrowings	6,413,000	6,346,000
	<u>6,462,021</u>	<u>6,406,165</u>

All SA Water's borrowings are measured at their historical value. The Corporation has a long term and short term borrowing facility with the South Australian Government Financing Authority (SAFA). The loans are denominated in Australian dollars and carry both fixed and floating interest rates. The Government provides a guarantee in respect of these borrowings pursuant to the provisions of the *Public Finance and Audit Act 1987*.

South Australian Water Corporation
Notes to the consolidated financial statements
30 June 2018
(continued)

22 Non-current liabilities - Financial liabilities/borrowings (continued)

Under a mandate from the State Treasurer, the Corporation transferred debt management responsibilities to SAFA effective from 1 July 2004. SA Water's debt portfolio is managed by SAFA under a Financial Bureau Service Agreement and within requirements outlined in SA Water's Treasury Risk Management Policy.

Forward starting loans

SA Water enters into FSLs with SAFA where it agrees to borrow specified amounts in the future at a pre-determined interest rate with the objective of minimising interest rate volatility. FSLs are non-derivative financial instruments which are outside the scope of AASB139 *Financial Instrument Recognition and Measurement*, and disclosed as unrecognised fixed rate loan commitments (refer note 2(c)).

23 Non-current liabilities - Deferred tax liabilities

	2018 \$'000	2017 \$'000
The balance comprises temporary differences attributable to:		
Prepayments	1,777	1,801
Lease incentive asset	102	-
Derivative financial instruments	-	2
Unlisted shares at fair value	-	(2,406)
Seasonal Water Allocations	-	11,388
Infrastructure, plant and equipment	(37,531)	(8,572)
	(35,652)	2,213
 <i>Amounts recognised directly in equity</i>		
Revaluation of infrastructure, plant and equipment	1,698,221	1,663,075
Unlisted shares at fair value	-	8,502
	1,698,221	1,671,577
 Total deferred tax liabilities	 1,662,569	 1,673,790
 Movements:		
Opening balance at 1 July	1,673,790	1,661,716
Credited to the Statement of Comprehensive Income (note 8)	(37,865)	(15,414)
Charged to equity (note 29)	26,644	26,105
Unlisted shares at fair value	-	1,383
Closing balance at 30 June	1,662,569	1,673,790
Deferred tax liabilities to be settled within 12 months	1,795	1,804
Deferred tax liabilities expected to be settled after more than 12 months	1,660,774	1,671,986
	1,662,569	1,673,790

South Australian Water Corporation
Notes to the consolidated financial statements
30 June 2018
(continued)

24 Non-current liabilities - Provisions

	2018 \$'000	2017 \$'000
Employee benefits	26,928	26,751
Workers compensation	2,541	3,039
	<u>29,469</u>	<u>29,790</u>

(a) *Movements in provisions*

Movements in each class of provision during the financial year, other than employee benefits, are set out below:

2018 Non-current	Workers compensation \$'000	Total \$'000
Opening balance at 1 July	3,039	3,039
Re-measurement adjustments	(498)	(498)
Closing balance at 30 June	<u>2,541</u>	<u>2,541</u>

Employee benefits

Liabilities that are not expected to be settled within 12 months are measured as the present value of expected future payments to be made in respect of services provided by employees up to the reporting date. Consideration is given to anticipated future wage and salary levels, experience of employee departures and periods of service. Expected future payments are discounted using interest rates on negotiable government guaranteed securities with terms of maturity that match, as closely as possible, the estimated future cash flows. The related on costs have been recognised in the Statement of Financial Position as payables.

The Corporation's long service leave liability for 30 June 2018 was valued by KPMG Actuarial Pty Ltd.

25 Non-current liabilities - Other non-current liabilities

	2018 \$'000	2017 \$'000
Government grants	360,890	370,162
Lease incentives	576	709
	<u>361,466</u>	<u>370,871</u>

South Australian Water Corporation
Notes to the consolidated financial statements
30 June 2018
(continued)

26 Reconciliation of cash

	2018 \$'000	2017 \$'000
Cash and cash equivalents as at the end of the financial year as shown in the statement of cash flows is reconciled to the items in the statement of financial position as follows:		
Cash and cash equivalents	<u>3,966</u>	<u>2,450</u>

Cash on hand and at bank is stated at nominal value. For the purposes of the Statement of Cash Flows, cash includes cash on hand and at bank.

(a) Fair Value

Due to the short term nature of cash and cash equivalents, their carrying value is assumed to approximate their fair value.

South Australian Water Corporation
Notes to the consolidated financial statements
30 June 2018
(continued)

27 Reconciliation of profit after income tax to net cash inflow from operating activities

	2018 \$'000	2017 \$'000
Net profit for the year	143,207	134,355
Add/(less) non-cash items:		
Depreciation and amortisation	356,774	327,013
Amortisation of government grant revenue	(9,466)	(9,352)
Contributed assets	(22,636)	(41,313)
Net (gain) on disposal of infrastructure, plant and equipment	(262)	(75)
Net (gain) on disposal of temporary water allocations	(3,304)	(1,546)
Infrastructure, plant and equipment revaluation decrement reversal	(651)	(253)
Infrastructure, plant and equipment revaluation decrement	1,818	3
Write-off in value of infrastructure, plant and equipment and capital WIP	31,841	14,322
Write-off in value of purchased seasonal water allocations	37,959	-
Net (gain) on disposal of renewable energy certificates	(18,339)	(5,911)
Change in assets and liabilities:		
Decrease/(increase) in receivables	15,420	(5,944)
(Increase) in inventories	(706)	(1,466)
Decrease/(increase) in prepayments	543	(2,878)
(Increase)/decrease in other operating assets	(11,838)	44
Decrease in derivative financial assets	853	106
Decrease in deferred tax assets	4,545	1,534
Decrease/(increase) in income tax receivable	5,659	(5,659)
Increase/(decrease) in trade creditors	3,903	(5,210)
Increase/(decrease) in provision for employee benefits	408	(1,319)
(Decrease)/increase in provision for workers compensation	(347)	85
(Decrease)/increase in other operating liabilities	(21,232)	24,047
Increase in government grants	155	45
(Decrease) in other provisions	(92)	(39)
(Decrease) in deferred tax liabilities	(37,865)	(15,414)
Increase/(decrease) in income tax payable	10,167	(9,783)
Net cash inflow from operating activities	486,514	395,392

South Australian Water Corporation
Notes to the consolidated financial statements
30 June 2018
 (continued)

28 Capital risk management

Capital is managed within the parameters outlined in the Financial Ownership Framework for SA Water, which encompasses the Corporation's relationship with its owner in respect of capital structure, community service obligations and dividends.

When managing capital, management's objective is to ensure the Corporation continues as a going concern as well as maintaining optimal returns to the State Government (as sole shareholder).

The gearing ratios based on continuing operations at 30 June 2017 and 30 June 2018 were as follows:

	2018 \$'000	2017 \$'000
Interest bearing borrowings (note 18, 22)	6,501,139	6,445,400
Less: Cash and cash equivalents (note 26)	<u>(3,966)</u>	<u>(2,450)</u>
Net debt	6,497,173	6,442,950
Total Assets	<u>14,316,964</u>	<u>14,194,721</u>
Gearing ratio	45.4%	45.4%

As part of the 2017/18 State Budget, the SA Government determined that SA Water adjust its borrowings each year prior to 30 June, to maintain a debt/asset gearing ratio of 45%. This commenced from the year ended 30 June 2017, with SA Water required to make an additional return to the State Government; this was transacted as a specified dividend, as directed by the Treasurer, of an amount equivalent to the required incremental increase in borrowings.

As part of 2018/19 state budget, it was determined that there is no specified dividend to be paid for the year ended 30 June 2018, in recognition that SA Water's debt/asset ratio was maintained above the predetermined gearing target of 45%.

South Australian Water Corporation
Notes to the consolidated financial statements
30 June 2018
(continued)

29 Asset revaluation surplus and retained profits

(a) Asset revaluation surplus

	2018 \$'000	2017 \$'000
Revaluation surplus - infrastructure, plant and equipment	5,049,757	4,969,419
Available-for-sale financial assets	-	19,837
	<u>5,049,757</u>	<u>4,989,256</u>

Movements:

<i>Infrastructure, plant and equipment revaluation surplus</i>		
Opening balance at 1 July	4,969,419	4,906,924
Revaluation of infrastructure, plant and equipment*	99,920	89,871
Transfers from available-for-sale investment revaluation surplus	19,837	-
Movements in deferred tax liability (note 23)	(26,644)	(26,105)
Transfer to retained profits on disposal	(12,029)	(2,298)
Movements in deferred tax assets (note 14)	(746)	1,027
Closing balance at 30 June	<u>5,049,757</u>	<u>4,969,419</u>
<i>Available-for-sale investments revaluation surplus</i>		
Opening balance at 1 July	19,837	16,611
Revaluation of investment in unlisted shares	-	4,609
Reclassification adjustments - transfer to infrastructure revaluation surplus	(19,837)	-
Movements in deferred tax liabilities (note 23)	-	(1,383)
Closing balance at 30 June	<u>-</u>	<u>19,837</u>

*The 2016/2017 revaluation increase (around 0.7%) is primarily attributable to the revaluation movement of pipe assets, wastewater treatment plants, desalination plant and water filtration plants.

*The 2017/2018 revaluation increase (around 0.8%) is primarily attributable to the revaluation increment of pipe assets, wastewater treatment plants, and water filtration plants.

South Australian Water Corporation
Notes to the consolidated financial statements
30 June 2018
(continued)

29 Asset revaluation surplus and retained profits (continued)

(b) Retained profits

Movements in retained profits were as follows:

Opening balance at 1 July	255,925	312,309
Profit for the year	143,207	134,355
Dividends (note 33)	(139,412)	(193,037)
Transfers from asset revaluation surplus	12,029	2,298
Closing balance at 30 June	<u>271,749</u>	<u>255,925</u>

(c) Nature and purpose of other asset revaluation surplus

(i) Infrastructure plant and equipment revaluation surplus

The infrastructure, plant and equipment revaluation surplus is the cumulative balance of asset revaluation increments and decrements.

(ii) Available-for-sale revaluation surplus

Changes in the fair value of unlisted shares are taken to the available-for-sale revaluation surplus.

South Australian Water Corporation
Notes to the consolidated financial statements
30 June 2018
(continued)

30 Commitments and contingencies

(a) *Capital commitments*

Capital expenditure contracted for at the balance date but not recognised as liabilities in the financial statements, are committed as follows:

	2018 \$'000	2017 \$'000
Within one year	175,203	23,361
Later than one year but not later than five years	30,703	5,672
	<u>205,906</u>	<u>29,033</u>

The capital commitments relate to the Corporation's capital program in delivering water and sewer infrastructure, property, plant & equipment assets.

(b) *Operating lease commitments*

	2018 \$'000	2017 \$'000
Commitments for minimum lease payments in relation to non-cancellable operating leases are committed as follows:		
Within one year	17,187	15,929
Later than one year but not later than five years	59,657	52,306
Later than five years	6,776	18,567
	<u>83,620</u>	<u>86,802</u>

The operating lease commitments relate to property and motor vehicle leases.

The rentals for property leases are non-cancellable, payable monthly and reviewed annually. The annual increases are based on 3%. The Corporation has an operating lease commitment for accommodation effective from 2008/09 which expires after 15 years, and includes a right of renewal and a market rent review in year 10.

The operating lease commitment for motor vehicles is non-cancellable, rentals are paid monthly in arrears and no contingent rental provisions exist within the agreement.

(c) *Other expenditure commitments*

	2018 \$'000	2017 \$'000
Future other expenditure commitments not provided for in the financial statements are committed as follows:		
Within one year	152,740	149,080
Later than one year but not later than five years	462,221	567,511
Later than five years	383,237	421,791
	<u>998,198</u>	<u>1,138,382</u>

Other expenditure commitments include commitments pursuant to contracts to:

- Operate, manage and maintain the Adelaide metropolitan water and sewer networks and treatment plants.

South Australian Water Corporation
Notes to the consolidated financial statements
30 June 2018
(continued)

30 Commitments and contingencies (continued)

(c) *Other expenditure commitments (continued)*

- Operate, maintain and provide energy for the Adelaide Desalination Project.
- Other expenditure commitments reported are based on minimum contracted amounts payable at balance date and include an estimate for escalation of charges.

(d) *Finance leases*

	2018 \$'000	2017 \$'000
Commitments in relation to finance leases are payable as follows:		
Within one year	17,584	17,584
Later than one year but not later than five years	50,207	60,425
Later than five years	13,432	20,797
Minimum lease payments	81,223	98,806
Future finance charges	(21,058)	(28,680)
Recognised as a liability	60,165	70,126
Representing lease liabilities:		
Current (note 18)	11,144	9,961
Non-current (note 22)	49,021	60,165
	60,165	70,126
The present value of finance lease liabilities is as follows:		
Within one year	11,144	9,961
Later than one year but not later than five years	37,164	42,776
Later than five years	11,857	17,389
Minimum lease payments	60,165	70,126

Future finance lease payments are amounts contracted with private sector providers to construct, own and operate water and sewer treatment facilities.

(e) *Contingent rentals*

The above finance leases comprise a base amount plus an incremental contingent rental. Contingent rentals are based on the consumer price and related indexes. Commitments in relation to contingent rentals are payable as follows:

	2018 \$'000	2017 \$'000
Within one year	5,682	5,397
Later than one year but not later than five years	16,764	18,763
Later than five years	4,914	7,173
	27,360	31,333

The amount of contingent rentals paid during the year is disclosed in note 7.

(f) *Other contingencies*

At balance date there were no other known contingent assets or liabilities.

31 Joint Operation

Jointly controlled operations

The Corporation holds an interest of 50% in the output of the Jointly controlled operation named SA Water/Lofty Ranges Power - Jointly controlled operation whose principal activity is the generation of electricity from the use of water energy stored in and by the Corporation's infrastructure at Hope Valley.

The Corporation's jointly controlled operation is brought to account by including its proportionate share of the operation's assets, liabilities, expenses and revenues on a line by line basis.

Included in the assets and liabilities of the Corporation are the following items which represent the Corporation's interest in the assets and liabilities employed in the Jointly controlled operation, recorded under the following classifications:

	2018 \$'000	2017 \$'000
Current assets		
Cash and cash equivalents	58	47
Receivables	5	5
Total current assets	<u>63</u>	<u>52</u>
Non-current assets		
Infrastructure, plant and equipment	1,518	1,528
Total assets	<u>1,581</u>	<u>1,580</u>
Current liabilities		
Payables	52	48
Total liabilities	<u>52</u>	<u>48</u>
Net assets	<u>1,529</u>	<u>1,532</u>

South Australian Water Corporation
Notes to the consolidated financial statements
30 June 2018
 (continued)

32 Remuneration of auditors

	2018	2017
	\$'000	\$'000
Audit fees paid/payable:		
SA Water annual Public Finance and Audit Act audit	395	389
SA Water regulatory financial statements audit*	11	12
	406	401

* Pursuant to *Water Industry Guideline Number 2* and confirmation from ESCOSA, a full Audit Opinion Certificate on the Corporation's 2017/18 special purpose (regulatory) financial statements is no longer required. An 'Agreed Upon Procedures Report' has been determined to be the appropriate audit assurance to SA Water's Board and Management.

33 Dividends

	2018	2017
	\$'000	\$'000
Dividend paid (a)	139,412	121,829
Dividend - interim dividend paid to SA Government (b)	-	71,208
	139,412	193,037

Dividends paid and payable are recognised in the reporting period in which the dividends are declared or have been specifically determined and approved in consultation with the Treasurer and the Corporation's Minister.

(a) Dividend paid to the South Australian (SA) Government has been in accordance with the Financial Ownership Framework where the dividend paid is based on the recommendation of the Board and approved by the Treasurer pursuant to section 30 of the Public Corporations Act 1993.

(b) As part of the 2017/18 State Budget, the SA Government determined that SA Water adjust its borrowings each year prior to 30 June, to maintain a deb/asset ratio of 45%. This decision was transacted as a specified dividend, as directed by the Treasurer, pursuant to section 30(2)(b) of the Public Corporations Act 1993. For the year ended 30 June 2017, this resulted in an increase in dividend payment of \$71.208m and an equivalent increase in borrowings. The dividend was drawn from the retained profits of the Corporation and paid on 29 June 2017.

As part of 2018/19 state budget, it was determined that there is no specified dividend to be paid for the year ended 30 June 2018, in recognition that SA Water's debt/asset ratio was maintained above the predetermined gearing target of 45%.

South Australian Water Corporation
Notes to the consolidated financial statements
30 June 2018
(continued)

34 Remuneration of employees

	Current employees 2018	Ex-Employees 2018	Current employees 2017	Ex-Employees 2017
The number of employees whose remuneration paid and payables falls within the following bands is:				
\$147,000 - 149,000*	n/a	n/a	7	-
\$149,001 - 159,000	36	-	40	1
\$159,001 - 169,000	40	-	21	1
\$169,001 - 179,000	17	-	15	2
\$179,001 - 189,000	6	-	10	1
\$189,001 - 199,000	5	1	1	-
\$199,001 - 209,000	6	2	5	-
\$209,001 - 219,000	3	-	5	-
\$219,001 - 229,000	2	-	1	-
\$229,001 - 239,000	-	-	2	1
\$239,001 - 249,000	1	-	1	-
\$249,001 - 259,000	2	-	-	1
\$259,001 - 269,000	2	-	2	-
\$269,001 - 279,000	-	-	1	-
\$279,001 - 289,000	-	-	-	2
\$289,001 - 299,000	1	-	-	1
\$299,001 - 309,000	1	-	2	-
\$309,001 - 319,000	-	1	1	-
\$319,001 - 329,000	1	-	-	-
\$329,001 - 339,000	-	-	-	1
\$339,001 - 349,000	-	-	1	-
\$359,001 - 369,000	1	-	-	-
\$369,001 - 379,000	-	-	1	-
\$379,001 - 389,000	1	-	-	-
\$399,001 - 409,000	-	-	1	-
\$409,001 - 419,000	-	-	-	1
\$419,001 - 429,000	1	-	-	-
\$559,001 - 569,000	-	-	1	-
\$569,001 - 579,000	1	-	-	-
Total	126	4	118	12

*This band has been included for the purposes of reporting comparative figures based on the executive base level remuneration rate for 2016-17.

The table includes all employees who received remuneration equal to or greater than the base executive remuneration level during the year. Remuneration of employees reflects all costs of employment including salaries and wages, payments in lieu of leave, superannuation contributions, salary sacrifice benefits and fringe benefits, and any fringe benefits tax paid or payable in respect of those benefits. The total remuneration received by these employees for the year was \$24.1m (2017: \$24.7m).

South Australian Water Corporation
Notes to the consolidated financial statements
30 June 2018
(continued)

34 Remuneration of employees (continued)

	2018 \$'000	2017 \$'000
Targeted voluntary separation packages (TVSPs)		
Amount paid during the reporting period to separated employees:		
TVSPs	88	557
Annual leave and long service leave paid to those employees	74	297
Net cost to SA Water	162	854

The number of employees who received TVSPs during the reporting period was 1 (2017: 5).

35 Remuneration of directors

The Board of SA Water was established under the *South Australian Water Corporation Act 1994* and consists of up to six members including the Chief Executive. Note: Although a member of the Board, the Chief Executive does not receive additional remuneration as a Board member. The remuneration of the Chief Executive is included in notes 34 and 36.

Remuneration of Directors (excluding the Chief Executive) is shown in the table below.

	2018 Number of directors	2017 Number of directors
The number of Directors of the Corporation (excluding the Chief Executive) whose remuneration paid and payable falls within the following bands is:		
\$40,000 - \$49,999	2	3
\$50,000 - \$59,999	2	2
\$80,000 - \$89,999	1	1
	5	6

The total remuneration paid and payable for those Directors was \$0.27m (2017: \$0.32m) which includes superannuation contributions.

36 Related party disclosures

(a) Directors

The following persons held the position of Director of the Corporation during the financial year:

Ms S.G.M Blencowe, Mr R.J.G.A Cheroux, Ms S.M Filby, Ms K.A Maywald, Ms C.A Pickles and Mr I.F Stirling.

Ms Blencowe is currently the deputy presiding member of the City of Port Adelaide Development Assessment Panel. Ms Blencowe was previously a member of the City of Port Adelaide Development Assessment Committee.

Mr Cheroux holds the position of Chief Executive and director of the corporation. He is currently a director of the Water Services Association of Australia, a member of the Advisory Council of the French-Australian Chamber of Commerce (FACCI), a member of the Advisory Committee of the Australian Water Partnership, and a member of the French Engagement Advisory Group (SA).

Ms Filby is currently a facilitator for Behind Closed Doors, external chair of the SA Power Networks Customer Consultative Panel, and a volunteer at Calvary Health Care. Ms Filby was previously a member of the Australian Institute of Company Directors. During the course of the year, Ms Filby was a verification judge for the Real Estate Institute of SA and a temporary member of the SA Planning Commission Public Hearing Panels.

Ms Maywald is currently the chair of ModMed (formerly Sturt Fleurieu Education & Training), the International Centre of Excellence in Water Resources Management (ICEWaRM), Hydro-dis International Ltd, and she is the chair and a shareholder in Stoney Pinch Sands Pty Ltd. Ms Maywald is an Advisory Council member for the Flinders University New Venture Institute. She is a board member for the Adelaide International 3 Day Event, a facilitator for Behind Closed Doors, partner of DR & KA Maywald, strategic advisor for the Department of State Development, member of CSIRO External Review Panel - Land and Water Business Unit, and a shareholder of Hydro-Dis International Ltd. Ms Maywald is the managing director for Maywald Consultants Pty Ltd whose clients include Enzen Australia and Stoney Pinch Sands P/L. Ms Maywald was previously a director for GPEx.

Ms Pickles does not currently have any interests which could affect her role on the SA Water Board.

Mr Stirling is currently the chair and a director of A Noble and Son Limited group of companies, director of the Adelaide Botanic Gardens Foundation, and an independent member of the Air Warfare Destroyers LT Sustainment Board (Department for Defence - DDG SPO). Mr Stirling is the executive chairman for Stirling Advisory Pty Ltd whose clients previously included Ausnet Services and Hastings Funds Management. Mr Stirling was previously a member of the University of Adelaide Business School Advisory Board.

South Australian Water Corporation
Notes to the consolidated financial statements
30 June 2018
(continued)

36 Related party disclosures (continued)

(b) *Key management personnel*

Key management personnel compensation for the years ended 30 June 2018 and 2017 is set out below. The key management personnel are the Directors of the Corporation (including the Chief Executive) and the Senior Leadership Team (SLT) who have responsibility for the strategic direction and management of the Corporation.

The Minister for Water and the River Murray is also considered a member of the key management personnel of the Corporation by virtue of the Minister's power to control and direct the Corporation pursuant to the *Public Corporations Act 1993*. No remuneration has been included in this note disclosure for the Minister as he is not directly remunerated by the Corporation.

	Number of key management personnel	Short-term benefits \$'000	Post-employment benefits \$'000	Long-term benefits \$'000	Termination benefits \$'000	Total \$'000
2018*	13	2,901	266	-	83	3,250
2017*	18	3,073	280	9	-	3,362

*Both 2018 and 2017 include an overlap of SLT members.

Due to the additional disclosures on related party transactions with key management personnel as required by Department of Treasury and Finance, from 1 July 2016 the value of leave liabilities accrued are no longer included as part of compensation - leave is recognised as it is paid.

South Australian Water Corporation
Notes to the consolidated financial statements
30 June 2018
(continued)

37 Statement of Administered Items

The Corporation was responsible for administering the Save the River Murray levy. The River Murray levy billed and collected on behalf of Government was not controlled by the Corporation. The Corporation ceased billing this levy at 1 July 2015, but continued to collect the outstanding debt billed prior to 1 July 2015. The following administered items are not recognised in the Corporation's Statement of Comprehensive Income, Statement of Financial Position and Statement of Cash Flows.

	2018		2017
	River Murray Levy \$'000	Total \$'000	Total \$'000
Consolidated entity			
Administered Income			
Revenue	(3)	(3)	(5)
Total Administered Revenues	<u>(3)</u>	<u>(3)</u>	<u>(5)</u>
Expenses	(3)	(3)	(5)
Total Administered Expenses	<u>(3)</u>	<u>(3)</u>	<u>(5)</u>
Operating Surplus	<u>-</u>	<u>-</u>	<u>-</u>
Consolidated entity			
Current Assets			
Cash and cash equivalents	-	-	48
Total Current Assets	<u>-</u>	<u>-</u>	<u>48</u>
Total Administered Assets	<u>-</u>	<u>-</u>	<u>48</u>
Current Liabilities			
Payables	-	-	48
Total Current Liabilities	<u>-</u>	<u>-</u>	<u>48</u>
Total Administered Liabilities	<u>-</u>	<u>-</u>	<u>48</u>
Net Assets	<u>-</u>	<u>-</u>	<u>-</u>

South Australian Water Corporation
Notes to the consolidated financial statements
30 June 2018
(continued)

37 Statement of Administered Items (continued)

	2018		2017
	River Murray Levy \$'000	Total \$'000	Total \$'000
Consolidated entity			
Cash flows from operating activities			
Cash inflows	(3)	(3)	(5)
Total Cash Inflows	<u>(3)</u>	<u>(3)</u>	<u>(5)</u>
Cash outflows	45	45	286
Total Cash Outflows	<u>45</u>	<u>45</u>	<u>286</u>
Net cash inflow/(outflow) from operating activities	<u>(48)</u>	<u>(48)</u>	<u>(291)</u>
Net increase/(decrease) in cash held	(48)	(48)	(291)
Cash at the beginning of the reporting period	48	48	339
Cash at the end of the reporting period	<u>-</u>	<u>-</u>	<u>48</u>

South Australian Water Corporation
Notes to the consolidated financial statements
30 June 2018
(continued)

38 SA Government transactions

(a) *Income received/receivable from entities within the SA Government*

	2018 \$'000	2017 \$'000
Rates and charges	41,409	44,854
Community service obligations	144,788	136,092
Recoverable works	17,425	13,644
Fees and charges	1,209	292
Miscellaneous	2	3
Government grants	396	282
Total revenue - SA Government entities	205,229	195,167

(b) *Expenses*

Supplies and services

	2018 \$'000	2017 \$'000
Provided by entities within the SA Government		
Operational services	39,767	38,338
Administration	29,092	34,482
Materials & Other	4	49
Payroll tax	7,744	7,558
Maintenance contracts	2,347	1,728
Total supplies and services - SA Government entities	78,954	82,155

Borrowing costs

Provided by entities within the SA Government

Interest expense	321,877	327,954
Total Borrowing Costs provided by entities within the SA Government	321,877	327,954

South Australian Water Corporation
Notes to the consolidated financial statements
30 June 2018
(continued)

38 SA Government transactions (continued)

(c) *Receivables*

	2018	2017
	\$'000	\$'000
Receivables from SA Government entities		
Community service obligations	18,971	18,376
Rates receivable (water and sewer)	663	1,157
Sundry debtors	5,242	4,966
	24,876	24,499

(d) *Payables*

Current

	2018	2017
	\$'000	\$'000
Payables to SA Government entities		
Trade creditors	8,026	15,332
Interest payable	78,034	81,634
Other creditors	1,896	2,141
	87,956	99,107

Non-Current

Payables to SA Government entities

Other creditors	1,362	1,352
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DRINKING WATER QUALITY DATA

Table 1

2017-18 metropolitan Adelaide source water quality (inlets to water treatment plants)

Parameter	Anstey Hill WTP				Hope Valley WTP			
	Samples	Min	Max	Ave*	Samples	Min	Max	Ave*
Colour – True (456nm) [HU]	12	8	66	21	9	25	78	45
Dissolved Organic Carbon [mg/L]	52	4.3	11.9	6.4	41	6.6	11.8	8.8
Fluoride [mg/L]	12	<0.1	0.24	0.14	9	0.16	0.28	0.23
Hardness – Total [mg/L]	13	93	121	108	13	109	134	123
Nitrate as Nitrogen [mg/L]	26	<0.003	0.342	0.169	26	<0.003	0.334	0.087
pH [pH units]	12	7.2	7.9	7.6	9	7.6	8.1	7.8
Phosphorus – Total [mg/L]	26	0.029	0.113	0.052	26	0.014	0.066	0.032
Total Dissolved Solids [mg/L]	12	150	340	260	9	250	330	290
Turbidity [NTU]	12	7.3	50	21	9	2.7	8.5	4.4

Parameter	Barossa WTP				Little Para WTP			
	Samples	Min	Max	Ave*	Samples	Min	Max	Ave*
Colour – True (456nm) [HU]	12	33	54	46	11	13	33	23
Dissolved Organic Carbon [mg/L]	52	11.7	13.3	12.5	51	6.1	8.3	7.3
Fluoride [mg/L]	12	0.15	0.25	0.22	11	0.22	0.36	0.28
Hardness – Total [mg/L]	13	77	93	85	13	116	149	135
Nitrate as Nitrogen [mg/L]	25	0.010	0.050	0.028	26	0.110	0.402	0.232
pH [pH units]	12	7.5	8.0	7.6	11	7.4	8.1	7.7
Phosphorus – Total [mg/L]	25	<0.005	0.139	0.023	26	0.007	0.056	0.021
Total Dissolved Solids [mg/L]	12	260	300	280	11	300	380	340
Turbidity [NTU]	12	0.41	1.2	0.90	11	2.7	15	8.7

Parameter	Happy Valley WTP				Myponga WTP			
	Samples	Min	Max	Ave*	Samples	Min	Max	Ave*
Colour – True (456nm) [HU]	12	20	75	55	12	54	106	79
Dissolved Organic Carbon [mg/L]	52	6.1	10.0	8.7	51	12.9	16.0	14.4
Fluoride [mg/L]	12	0.14	0.24	0.20	12	0.10	0.20	0.17
Hardness – Total [mg/L]	13	72	94	88	13	90	102	96
Nitrate as Nitrogen [mg/L]	26	<0.003	0.191	0.053	26	<0.003	0.146	0.057
pH [pH units]	12	7.6	8.6	8.0	12	7.3	8.2	7.6
Phosphorus – Total [mg/L]	26	0.038	0.091	0.059	26	0.027	0.130	0.067
Total Dissolved Solids [mg/L]	12	150	250	240	12	290	340	310
Turbidity [NTU]	12	4.4	33	13	12	2.3	4.5	3.2

* Limit of reporting (LOR) values replaced with LOR/2.

Table 2**2017-18 metropolitan Adelaide distribution system customer tap water quality against Australian Drinking Water Guidelines**

Anstey Hill Metro System							
Parameter	Health Guideline	Aesthetic Guideline	Samples	Min	Max	Ave*	% Compliance[#]
Chlorine Residual – Free [mg/L]	≤ 5.0		278	<0.1	1.4	0.4	100
Chlorine Residual – Free [mg/L]		≤ 0.6[mg/L]	278	<0.1	1.4	0.4	82.7
Colour – True [HU]		≤ 15[HU]	8	<1	3	1	100
E.coli [per cfu/100mL]	++		278	0	0	0	100
Fluoride [mg/L]	≤ 1.5		8	0.23	1.00	0.83	100
Hardness – Total [mg/L]		≤ 200[mg/L]	8	59	124	89	100
Iron – Total [mg/L]		≤ 0.3[mg/L]	8	0.0021	0.0347	0.0112	100
Manganese – Total [mg/L]	≤ 0.5		8	0.0003	0.0027	0.0009	100
Manganese – Total [mg/L]		≤ 0.1[mg/L]	8	0.0003	0.0027	0.0009	100
pH [pH units]		6.5 - 8.5[pH units]	24	7.1	7.6	7.3	100
Total Dissolved Solids [mg/L]		≤ 600[mg/L]	8	190	370	280	100
Trihalomethanes – Total [µg/L]	≤ 250		52	70	209	120	100
Turbidity [NTU]		≤ 5[NTU]	24	<0.1	0.22	<0.1	100

Barossa Metro System							
Parameter	Health Guideline	Aesthetic Guideline	Samples	Min	Max	Ave*	% Compliance[#]
Chlorine Residual – Free [mg/L]	≤ 5		140	<0.1	1.2	0.3	100
Chlorine Residual – Free [mg/L]		≤ 0.6[mg/L]	140	<0.1	1.2	0.3	84.3
Colour – True [HU]		≤ 15[HU]	8	1	3	2	100
E.coli [per cfu/100mL]	++		140	0	0	0	100
Fluoride [mg/L]	≤ 1.5		8	0.10	1.00	0.70	100
Hardness – Total [mg/L]		≤ 200[mg/L]	8	96	128	111	100
Iron – Total [mg/L]		≤ 0.3[mg/L]	8	0.0030	0.0229	0.0098	100
Manganese – Total [mg/L]	≤ 0.5		8	0.0005	0.0148	0.0031	100
Manganese – Total [mg/L]		≤ 0.1[mg/L]	8	0.0005	0.0148	0.0031	100
pH [pH units]		6.5 - 8.5[pH units]	24	7.0	7.7	7.4	100
Total Dissolved Solids [mg/L]		≤ 600[mg/L]	8	300	340	320	100
Trihalomethanes – Total [µg/L]	≤ 250		42	127	241	176	100
Turbidity [NTU]		≤ 5[NTU]	24	<0.1	0.29	0.10	100

Table 2 — *continued*

Central Metro System							
Parameter	Health Guideline	Aesthetic Guideline	Samples	Min	Max	Ave*	% Compliance[#]
Chlorine Residual – Free [mg/L]	≤ 5		1355	<0.1	1.7	0.4	100
Chlorine Residual – Free [mg/L]		≤ 0.6[mg/L]	1355	<0.1	1.7	0.4	79.6
Colour – True [HU]		≤ 15[HU]	33	<1	4	1	100
E.coli [per cfu/100mL]	++		1351	0	1	0	99.9
Fluoride [mg/L]	≤ 1.5		33	0.11	0.96	0.70	100
Hardness – Total [mg/L]		≤ 200[mg/L]	33	87	145	107	100
Iron – Total [mg/L]		≤ 0.3[mg/L]	33	0.0012	0.0232	0.0074	100
Manganese – Total [mg/L]	≤ 0.5		33	<0.0001	0.0021	0.0007	100
Manganese – Total [mg/L]		≤ 0.1[mg/L]	33	<0.0001	0.0021	0.0007	100
pH [pH units]		6.5 - 8.5[pH units]	103	7.0	8.1	7.3	100
Total Dissolved Solids [mg/L]		≤ 600[mg/L]	33	250	340	280	100
Trihalomethanes – Total [µg/L]	≤ 250		209	81	263	150	98.6
Turbidity [NTU]		≤ 5[NTU]	103	<0.1	0.53	<0.1	100

East Metro System							
Parameter	Health Guideline	Aesthetic Guideline	Samples	Min	Max	Ave*	% Compliance[#]
Chlorine Residual – Free [mg/L]	≤ 5		391	<0.1	1.2	0.3	100
Chlorine Residual – Free [mg/L]		≤ 0.6[mg/L]	391	<0.1	1.2	0.3	83.9
Colour – True [HU]		≤ 15[HU]	11	<1	3	1	100
E.coli [per cfu/100mL]	++		391	0	0	0	100
Fluoride [mg/L]	≤ 1.5		11	0.64	0.99	0.88	100
Hardness – Total [mg/L]		≤ 200[mg/L]	11	62	123	96	100
Iron – Total [mg/L]		≤ 0.3[mg/L]	11	0.0028	0.0138	0.0075	100
Manganese – Total [mg/L]	≤ 0.5		11	0.0002	0.0017	0.0007	100
Manganese – Total [mg/L]		≤ 0.1[mg/L]	11	0.0002	0.0017	0.0007	100
pH [pH units]		6.5 - 8.5[pH units]	35	7.0	7.9	7.4	100
Total Dissolved Solids [mg/L]		≤ 600[mg/L]	11	180	360	280	100
Trihalomethanes – Total [µg/L]	≤ 250		64	83	250	146	100
Turbidity [NTU]		≤ 5[NTU]	58	<0.1	0.18	0.10	100

Myponga Metro System

Parameter	Health Guideline	Aesthetic Guideline	Samples	Min	Max	Ave*	% Compliance [#]
Chlorine Residual – Free [mg/L]	≤ 5		64	<0.1	0.1	<0.1	100
Chlorine Residual – Free [mg/L]		≤ 0.6[mg/L]	64	<0.1	0.1	<0.1	100
Colour – True [HU]		≤ 15[HU]	3	2	2	2	100
E.coli [per cfu/100mL]	++		62	0	0	0	100
Fluoride [mg/L]	≤ 1.5		3	0.15	0.93	0.64	100
Hardness – Total [mg/L]		≤ 200[mg/L]	3	92	101	96	100
Iron – Total [mg/L]		≤ 0.3[mg/L]	3	0.0130	0.0555	0.0272	100
Manganese – Total [mg/L]	≤ 0.5		3	0.0019	0.0054	0.0035	100
Manganese – Total [mg/L]		≤ 0.1[mg/L]	3	0.0019	0.0054	0.0035	100
pH [pH units]		6.5 - 8.5[pH units]	11	7.0	7.7	7.3	100
Total Dissolved Solids [mg/L]		≤ 600[mg/L]	3	330	370	350	100
Trihalomethanes – Total [µg/L]	≤ 250		23	94	215	169	100
Turbidity [NTU]		≤ 5[NTU]	11	<0.1	0.68	0.17	100

North Metro System

Parameter	Health Guideline	Aesthetic Guideline	Samples	Min	Max	Ave*	% Compliance [#]
Chlorine Residual – Free [mg/L]	≤ 5		471	<0.1	1.3	0.3	100
Chlorine Residual – Free [mg/L]		≤ 0.6[mg/L]	471	<0.1	1.3	0.3	89.8
Colour – True [HU]		≤ 15[HU]	15	<1	3	2	100
E.coli [per cfu/100mL]	++		471	0	0	0	100
Fluoride [mg/L]	≤ 1.5		15	0.14	0.99	0.83	100
Hardness – Total [mg/L]		≤ 200[mg/L]	15	69	153	114	100
Iron – Total [mg/L]		≤ 0.3[mg/L]	15	0.0015	0.0196	0.0079	100
Manganese – Total [mg/L]	≤ 0.5		15	0.0002	0.0076	0.0015	100
Manganese – Total [mg/L]		≤ 0.1[mg/L]	15	0.0002	0.0076	0.0015	100
pH [pH units]		6.5 - 8.5[pH units]	47	7.0	7.8	7.3	100
Total Dissolved Solids [mg/L]		≤ 600[mg/L]	38	170	390	290	100
Trihalomethanes – Total [µg/L]	≤ 250		83	59	258	168	98.8
Turbidity [NTU]		≤ 5[NTU]	47	<0.1	0.26	<0.1	100

Table 2 — *continued*

South Metro System							
Parameter	Health Guideline	Aesthetic Guideline	Samples	Min	Max	Ave*	% Compliance[#]
Chlorine Residual – Free [mg/L]	≤ 5		135	<0.1	1.4	0.1	100
Chlorine Residual – Free [mg/L]		≤ 0.6[mg/L]	135	<0.1	1.4	0.1	97.8
Colour – True [HU]		≤ 15[HU]	4	<1	2	1	100
E.coli [per cfu/100mL]	++		135	0	0	0	100
Fluoride [mg/L]	≤ 1.5		4	0.13	0.96	0.71	100
Hardness – Total [mg/L]		≤ 200[mg/L]	4	95	115	106	100
Iron – Total [mg/L]		≤ 0.3[mg/L]	4	0.0053	0.0079	0.0069	100
Manganese – Total [mg/L]	≤ 0.5		4	0.0005	0.0009	0.0006	100
Manganese – Total [mg/L]		≤ 0.1[mg/L]	4	0.0005	0.0009	0.0006	100
pH [pH units]		6.5 - 8.5[pH units]	11	7.2	7.6	7.4	100
Total Dissolved Solids [mg/L]		≤ 600[mg/L]	4	260	290	270	100
Trihalomethanes – Total [µg/L]	≤ 250		58	60	201	151	100
Turbidity [NTU]		≤ 5[NTU]	11	<0.1	0.13	<0.1	100

West Metro System							
Parameter	Health Guideline	Aesthetic Guideline	Samples	Min	Max	Ave*	% Compliance[#]
Chlorine Residual – Free [mg/L]	≤ 5		656	<0.1	2.0	0.3	100
Chlorine Residual – Free [mg/L]		≤ 0.6[mg/L]	656	<0.1	2.0	0.3	81.3
Colour – True [HU]		≤ 15[HU]	22	<1	5	1	100
E.coli [per cfu/100mL]	++		486	0	0	0	100
Fluoride [mg/L]	≤ 1.5		22	0.22	0.99	0.77	100
Hardness – Total [mg/L]		≤ 200[mg/L]	22	78	159	117	100
Iron – Total [mg/L]		≤ 0.3[mg/L]	22	0.0030	0.0555	0.0107	100
Manganese – Total [mg/L]	≤ 0.5		22	<0.0001	0.0055	0.0013	100
Manganese – Total [mg/L]		≤ 0.1[mg/L]	22	<0.0001	0.0055	0.0013	100
pH [pH units]		6.5 - 8.5[pH units]	70	7.0	7.9	7.4	100
Total Dissolved Solids [mg/L]		≤ 600[mg/L]	310	180	500	290	100
Trihalomethanes – Total [µg/L]	≤ 250		115	100	267	174	97.4
Turbidity [NTU]		≤ 5[NTU]	70	<0.1	0.25	<0.1	100

Metropolitan Adelaide – Total Distribution System

Parameter	Health Guideline	Aesthetic Guideline	Samples	Min	Max	Ave*	% Compliance [#]
Chlorine Residual – Free [mg/L]		≤ 0.6[mg/L]	3,490	<0.1	2.0	0.3	83.3
Chlorine Residual – Free [mg/L]	≤ 5		3,490	<0.1	2.0	0.3	100
Colour – True [HU]		≤ 15[HU]	104	<1	5	1	100
E.coli [per cfu/100mL]	++		3,314	0	1	0	99.97
Fluoride [mg/L]	≤ 1.5		104	0.1	1.0	0.8	100
Hardness – Total [mg/L]		≤ 200[mg/L]	104	59	159	107	100
Iron – Total [mg/L]		≤ 0.3[mg/L]	104	0.0012	0.0555	0.0092	100
Manganese – Total [mg/L]		≤ 0.1[mg/L]	104	<0.0001	0.0148	0.0012	100
Manganese – Total [mg/L]	≤ 0.5		104	<0.0001	0.0148	0.0012	100
pH [pH units]		6.5 - 8.5[pH units]	325	7.0	8.1	7.4	100
Total Dissolved Solids [mg/L]		≤ 600[mg/L]	415	170	500	290	100
Trihalomethanes – Total [µg/L]	≤ 250		646	59	267	156	98.9
Turbidity [NTU]		≤ 5[NTU]	348	<0.1	0.70	<0.1	100

++ *E. coli* should not be detected in samples of drinking water.

[#] Although we aim for 100% compliance, the ADWG recognise that occasional detections may occur.

[#] With respect to trihalomethanes – total, the ADWG states: "although concentrations of by-products should be kept as low as possible, efforts to achieve this should never jeopardise effective disinfection." In accordance with the guidelines, any detection is immediately investigated and corrective action implemented as agreed with SA Health.

* Limit of reporting (LOR) values replaced with LOR/2.

[#] Prior to calculating % compliance for health related chemicals individual results are rounded to the same number of significant figures as the guideline value in the ADWG (as prescribed in the ADWG and agreed with SA Health).

Table 3

2017-18 country source water quality

System	Total Dissolved Solids [mg/L]			Hardness – Total [mg/L]			Dissolved Organic Carbon [mg/L]			pH [pH Units]		
	Min	Max	Ave*	Min	Max	Ave*	Min	Max	Ave*	Min	Max	Ave*
Baramba WTP	110	230	170	N/A	N/A	N/A	3.4	5.9	4.7	7.5	8.4	7.9
Barossa WTP	260	300	280	77	93	85	11.7	13.3	12.5	7.5	8.0	7.6
Beachport IRP	640	680	660	267	271	269	0.9	0.9	0.9	7.5	7.6	7.5
Berri WTP	100	210	170	N/A	N/A	N/A	3.4	6.6	4.8	7.1	8.4	7.8
Blanchetown WTP	130	270	200	N/A	N/A	N/A	4.2	6.3	5.1	7.1	8.4	7.8
Bordertown	360	630	480	215	312	252	0.6	0.9	0.7	7.0	8.0	7.3
Cadell WTP	120	350	200	N/A	N/A	N/A	4.0	5.8	4.9	7.0	8.5	7.8
Coffin Bay	340	510	400	206	219	210	0.4	0.5	0.5	7.4	7.9	7.7
Cowirra WTP	140	280	210	N/A	N/A	N/A	4.5	6.1	5.2	7.2	8.4	7.7
Elliston	570	1 000	800	255	331	293	0.4	0.5	0.5	7.2	7.5	7.4
Eyre South	430	1 300	670	211	505	290	0.5	2.0	0.8	7.0	7.7	7.4
Geranium	1 300	1 500	1 400	557	558	558	0.6	0.9	0.8	7.0	7.1	7.0
Glossop WTP	100	210	170	N/A	N/A	N/A	3.4	6.6	4.8	7.1	8.4	7.8
Happy Valley WTP	150	250	240	72	94	88	6.1	10.0	8.7	7.6	8.6	8.0
Hawker Desalination WTP	2 200	2 600	2 400	897	978	938	0.4	0.6	0.5	7.3	7.7	7.5
Kalangadoo IRP	530	550	540	325	329	327	1.2	1.2	1.2	7.2	7.4	7.3
Kanmantoo WTP	150	320	230	49	75	63	4.2	8.1	5.6	7.1	7.8	7.4
Kingston SE IRP	750	1 000	880	206	241	227	0.9	1.1	0.9	7.4	7.8	7.6
Lameroo IRP	870	1 000	950	222	227	225	0.4	0.5	0.5	7.2	7.6	7.5
Leigh Creek WTP	1 700	5 100	2 700	465	1 470	824	<0.3	1.2	0.7	7.2	7.7	7.5
Loxton WTP	110	220	170	N/A	N/A	N/A	3.5	7.6	4.8	7.1	8.6	8.0
Lucindale IRP	800	840	820	303	307	305	2.4	2.4	2.4	7.4	7.6	7.5
Mannum WTP	140	320	220	48	73	62	4.3	6.9	5.5	7.1	7.9	7.6
Melrose	1 200	1 700	1 500	267	390	329	0.4	0.4	0.4	7.3	7.5	7.4
Middle River WTP	270	620	470	37	97	72	11.6	23.1	15.1	6.7	7.4	7.0
Millicent	550	720	630	320	360	335	0.8	1.4	1.1	7.5	7.6	7.6
Moorook WTP	110	230	170	N/A	N/A	N/A	3.5	6.3	4.9	7.2	8.3	7.8
Morgan WTP	130	240	190	45	66	56	3.9	8.8	5.4	7.4	8.7	8.0
Mt Burr	410	490	450	261	311	286	0.5	0.6	0.6	7.3	7.7	7.5
Mt Compass	110	260	180	N/A	N/A	N/A	N/A	N/A	N/A	6.1	7.1	6.5
Mt Gambier	350	630	500	173	305	225	0.8	1.9	1.1	7.4	8.4	8.1
Mt Pleasant WTP	140	320	220	48	73	62	3.7	6.9	5.2	7.1	7.9	7.5
Murray Bridge WTP	150	320	230	49	75	63	4.2	8.1	5.6	7.1	7.7	7.4
Mypolonga WTP	150	320	220	N/A	N/A	N/A	4.4	6.9	5.3	7.2	7.7	7.4
Myponga WTP	290	340	310	90	102	96	12.9	16.0	14.4	7.3	8.2	7.6
Nangwarry	530	710	590	325	362	344	1.0	1.1	1.1	7.1	7.4	7.3

System	Total Dissolved Solids [mg/L]			Hardness – Total [mg/L]			Dissolved Organic Carbon [mg/L]			pH [pH Units]		
	Min	Max	Ave*	Min	Max	Ave*	Min	Max	Ave*	Min	Max	Ave*
Naracoorte	1 200	1 300	1 300	324	362	337	1.3	1.9	1.7	7.7	7.9	7.8
Orroroo	1 800	2 100	2 000	697	723	710	0.3	0.4	0.4	6.8	7.5	7.1
Padthaway	1 300	1 600	1 500	543	609	576	0.8	0.9	0.9	7.1	7.3	7.2
Palmer WTP	140	320	220	48	73	62	4.3	6.9	5.5	7.1	7.9	7.6
Parachilna	820	840	830	349	349	349	<0.3	<0.3	<0.3	7.7	7.8	7.7
Parilla IRP	630	680	650	175	183	179	0.4	0.5	0.5	7.0	7.8	7.6
Penneshaw WTP	34 000	37 000	35 000	N/A	N/A	N/A	1.1	1.1	1.1	7.0	8.2	7.8
Penola IRP	650	680	660	323	336	330	1.4	3.2	2.3	7.4	7.6	7.5
Pinnaroo IRP	680	770	720	242	253	247	0.4	0.5	0.5	7.4	7.7	7.5
Port MacDonnell	680	710	690	19	22	21	1.2	1.3	1.3	8.2	8.4	8.3
Quorn	1 100	1 400	1 200	465	506	486	0.8	1.2	1.0	7.0	7.4	7.2
Renmark WTP	92	190	140	36	53	47	3.1	6.8	4.9	7.1	8.4	7.7
Robe IRP	620	1000	740	70	152	118	0.7	1.2	1.0	7.7	8.1	7.8
Summit WTP	150	320	230	49	75	63	4.2	8.1	5.6	7.1	7.7	7.4
Swan Reach Town WTP	130	260	200	N/A	N/A	N/A	4.1	6.2	5.2	7.3	9.0	8.0
Swan Reach WTP	130	250	200	45	69	58	4.1	8.1	5.3	7.5	9.2	8.1
Tailem Bend WTP	170	330	240	52	87	67	4.4	8.2	5.7	7.1	8.3	7.6
Tarpeena IRP	630	750	690	386	392	389	1.0	1.1	1.1	7.3	7.4	7.3
Waikerie WTP	120	240	180	N/A	N/A	N/A	3.8	8.3	5.3	7.3	8.7	7.9
Warooka	720	790	760	322	322	322	1.0	1.0	1.0	7.6	7.7	7.6
Wilmington	290	330	300	89	120	105	1.1	2.5	1.8	6.4	6.7	6.5
Woolpunda	110	250	180	N/A	N/A	N/A	4.0	6.1	4.9	7.4	8.4	7.9

* Limit of reporting (LOR) values replaced with LOR/2.
N/A = not applicable.

Table 3 — continued

System	Turbidity [NTU]			Colour – True (456nm) [HU]			Nitrate as Nitrogen [mg/L]			Phosphorous – Total [mg/L]		
	Min	Max	Ave*	Min	Max	Ave*	Min	Max	Ave*	Min	Max	Ave*
Barmera WTP	8.0	95	29	6	16	11	N/A	N/A	N/A	N/A	N/A	N/A
Barossa WTP	0.41	1.2	0.9	33	54	46	0.010	0.050	0.028	<0.005	0.139	0.023
Beachport IRP	2.2	4.2	3.4	<1	<1	<1	<0.003	<0.005	<0.005	0.040	0.045	0.043
Berri WTP	8.5	79	25	6	18	11	N/A	N/A	N/A	N/A	N/A	N/A
Blanchetown WTP	7.6	89	33	7	15	11	N/A	N/A	N/A	N/A	N/A	N/A
Bordertown	<0.1	51	4.2	<1	2	1	0.014	0.328	0.106	0.008	0.102	0.026
Cadell WTP	10	91	33	7	15	11	N/A	N/A	N/A	N/A	N/A	N/A
Coffin Bay	<0.1	0.30	<0.1	<1	<1	<1	0.160	1.260	0.766	0.009	0.019	0.014
Cowirra WTP	9.2	59	30	8	13	11	N/A	N/A	N/A	N/A	N/A	N/A
Elliston	<0.1	0.24	<0.1	<1	<1	<1	3.060	3.930	3.495	<0.005	0.011	0.007
Eyre South	<0.1	22	0.59	<1	2	<1	0.570	5.300	3.335	<0.005	0.037	0.009
Geranium	<0.1	0.14	<0.1	<1	<1	<1	0.022	0.100	0.061	0.031	0.037	0.034
Glossop WTP	8.5	79	25	6	18	11	N/A	N/A	N/A	N/A	N/A	N/A
Happy Valley WTP	4.4	33	13	20	75	55	<0.003	0.191	0.053	0.038	0.091	0.059
Hawker Desalination WTP	8.6	15	12	<1	<1	<1	<0.003	<0.003	<0.003	0.015	0.016	0.016
Kalangadoo IRP	2.4	5.9	4.0	<1	2	<1	<0.003	0.010	0.006	0.015	0.016	0.016
Kanmantoo WTP	14	79	37	8	16	12	N/A	N/A	N/A	0.028	0.373	0.109
Kingston SE IRP	1.1	20	7.5	<1	<1	<1	<0.003	<0.005	<0.003	0.006	0.061	0.026
Lameroo IRP	1.8	5.4	3.3	<1	<1	<1	<0.003	<0.005	<0.005	0.061	0.082	0.072
Leigh Creek WTP	<0.1	6.9	0.43	<1	3	1	0.370	2.330	1.257	<0.005	0.041	0.015
Loxton WTP	9.3	73	26	6	18	11	<0.003	0.030	0.004	0.041	0.163	0.078
Lucindale IRP	0.34	11	6.9	<1	2	2	<0.003	<0.003	<0.003	0.028	0.043	0.036
Mannum WTP	12	90	34	7	19	11	<0.003	0.186	0.051	0.053	1.040	0.133
Melrose	<0.1	1.3	0.31	<1	<1	<1	0.320	0.960	0.640	0.016	0.021	0.019
Middle River WTP	4.4	24	11	125	234	160	<0.005	0.310	0.129	0.017	0.070	0.030
Millicent	0.20	46	3.1	1	3	2	<0.005	0.100	0.046	0.012	0.021	0.015
Moorook WTP	9.2	77	28	6	17	11	<0.003	0.012	0.005	0.038	0.261	0.092
Morgan WTP	1.6	67	26	6	21	11	N/A	N/A	N/A	0.034	1.460	0.122
Mt Burr	<0.1	0.31	0.13	<1	<1	<1	1.160	1.560	1.360	0.021	0.037	0.029
Mt Compass	<0.1	0.60	0.12	<1	<1	<1	N/A	N/A	N/A	N/A	N/A	N/A
Mt Gambier	0.16	3.1	0.86	<1	3	2	<0.003	3.890	2.534	<0.005	0.047	0.017
Mt Pleasant WTP	6.2	90	31	7	19	11	<0.003	0.186	0.051	0.053	1.040	0.133
Murray Bridge WTP	14	79	37	8	16	12	N/A	N/A	N/A	0.028	0.373	0.109
Mypolonga WTP	12	59	32	9	16	12	N/A	N/A	N/A	N/A	N/A	N/A
Myponga WTP	2.3	4.5	3.2	54	106	79	<0.003	0.146	0.057	0.027	0.130	0.067
Nangwarry	<0.1	1.2	0.16	<1	<1	<1	2.200	4.160	3.180	0.008	0.018	0.013

System	Turbidity [NTU]			Colour – True (456nm) [HU]			Nitrate as Nitrogen [mg/L]			Phosphorous – Total [mg/L]		
	Min	Max	Ave*	Min	Max	Ave*	Min	Max	Ave*	Min	Max	Ave*
Naracoorte	0.22	1.0	0.40	4	5	5	<0.003	<0.005	<0.005	0.056	0.062	0.059
Orroroo	<0.1	0.16	<0.1	<1	<1	<1	0.040	0.050	0.045	0.017	0.030	0.024
Padthaway	0.15	5.3	0.76	<1	<1	<1	0.050	0.085	0.068	0.015	0.016	0.016
Palmer WTP	12	90	34	7	19	11	<0.003	0.186	0.051	0.053	1.040	0.133
Parachilna	<0.1	0.28	<0.1	<1	3	1	1.470	1.470	1.470	<0.005	<0.005	<0.005
Parilla IRP	1.6	4.1	2.7	<1	<1	<1	<0.003	<0.005	<0.005	0.040	0.041	0.041
Penneshaw WTP	0.14	1.6	0.45	N/A	N/A	N/A	N/A	N/A	N/A	<0.005	0.018	0.010
Penola IRP	6.0	15	10	2	3	3	<0.005	<0.005	<0.005	0.027	0.032	0.030
Pinnaroo IRP	1.2	9.1	3.5	<1	<1	<1	<0.003	<0.005	<0.005	0.051	0.059	0.055
Port MacDonnell	<0.1	0.45	0.18	3	7	5	<0.003	<0.003	<0.003	0.181	0.209	0.195
Quorn	<0.1	0.55	0.12	<1	<1	<1	0.110	0.116	0.113	0.019	0.028	0.024
Renmark WTP	9.9	62	27	6	21	12	<0.003	0.126	0.011	0.036	0.181	0.092
Robe IRP	0.20	3.5	1.2	<1	2	1	<0.003	0.210	0.056	0.027	0.051	0.040
Summit WTP	14	79	37	8	16	12	N/A	N/A	N/A	0.028	0.373	0.109
Swan Reach Town WTP	0.50	64	30	7	14	11	N/A	N/A	N/A	N/A	N/A	N/A
Swan Reach WTP	9.4	67	27	6	18	11	<0.003	0.093	0.013	0.013	0.280	0.114
Tailem Bend WTP	14	72	32	9	15	12	N/A	N/A	N/A	0.052	0.212	0.106
Tarpeena IRP	0.59	19	9.3	<1	1	<1	<0.003	<0.005	<0.005	0.033	0.065	0.049
Waikerie WTP	8.2	89	33	<1	16	11	<0.003	0.062	0.007	0.034	0.209	0.100
Warooka	<0.1	0.58	0.10	<1	<1	<1	4.210	4.210	4.210	0.028	0.028	0.028
Wilmington	<0.1	0.88	0.28	<1	<1	<1	0.126	0.229	0.178	0.070	0.096	0.083
Woolpunda	11	78	34	6	16	11	N/A	N/A	N/A	N/A	N/A	N/A

* Limit of reporting (LOR) values replaced with LOR/2.
N/A = not applicable.

Table 4

2017-18 country drinking water distribution systems – customer tap water quality against Australian Drinking Water Guidelines

System	<i>E.coli</i> [per cfu/100mL]		Chlorine Residual – Free [mg/L]^			
	Samples	Health Compliance %	Min	Max	Ave*	Health Compliance % [#]
ADWG value		++				≤ 5
Target		99.8% Free				99.8%
Barmera WTP	104	100	0.6	2.0	1.2	100
Barossa WTP	384	100	<0.1	2.8	0.6	100
Beachport IRP	63	100	0.6	1.7	1.0	100
Berri WTP	88	100	0.1	2.2	1.2	100
Blanchetown WTP	52	100	0.2	1.0	0.6	100
Bordertown	64	100	0.7	1.4	1.0	100
Cadell WTP	52	100	0.4	1.2	0.8	100
Coffin Bay	63	100	0.7	1.3	1.0	100
Cowirra WTP	64	100	0.5	2.5	1.4	100
Elliston	100	100	0.8	1.8	1.1	100
Eyre South	377	100	<0.1	1.5	1.0	100
Eyre South/Morgan WTP	334	100	0.6	2.0	1.3	100
Geranium	52	100	0.6	1.8	1.0	100
Glossop WTP	104	100	0.3	1.9	1.2	100
Happy Valley WTP	63	100	<0.1	1.3	0.6	100
Hawker Desalination WTP	50	100	0.3	1.3	1.0	100
Kalangadoo IRP	64	100	0.4	1.4	1.0	100
Kanmantoo WTP	78	100	0.3	1.9	1.3	100
Kingston SE IRP	64	100	0.6	1.3	1.0	100
Lameroo IRP	52	100	0.9	1.6	1.3	100
Leigh Creek WTP	52	100	0.5	1.5	1.2	100
Loxton WTP	73	100	N/A	N/A	N/A	-
Lucindale IRP	64	100	0.5	1.5	0.9	100
Mannum WTP	116	100	0.1	2.4	0.9	100
Melrose	50	100	0.8	1.7	1.2	100
Middle River WTP	114	100	<0.1	1.7	0.6	100
Millicent	75	100	0.3	1.0	0.7	100
Moorook WTP	104	100	0.6	2.2	1.4	100
Morgan / Swan Reach WTP	504	100	N/A	N/A	N/A	-
Morgan WTP	713	100	N/A	N/A	N/A	-
Mt Burr	64	100	0.5	1.2	0.8	100
Mt Compass	63	100	0.4	1.7	1.1	100
Mt Gambier	151	100	0.5	1.7	1.0	100
Mt Pleasant WTP	127	100	<0.1	1.7	0.8	100

System	E.coli [per cfu/100mL]		Chlorine Residual – Free [mg/L] [^]			
	Samples	Health Compliance %	Min	Max	Ave [*]	Health Compliance % [#]
ADWG value		++				≤ 5
Target		99.8% Free				99.8%
Murray Bridge WTP	142	100	<0.1	4.4	2.1	100
Mypolonga WTP	64	100	<0.1	2.3	1.3	100
Myponga WTP	206	100	<0.1	1.5	0.4	100
Nangwarry	63	100	0.2	1.5	0.9	100
Naracoorte	75	100	0.3	1.0	0.7	100
Orroroo	52	100	0.9	1.7	1.2	100
Padthaway	64	100	0.5	1.8	0.9	100
Palmer WTP	110	100	0.2	2.1	1.1	100
Parachilna	51	100	0.2	1.1	0.7	100
Parilla IRP	52	100	0.6	1.7	1.0	100
Penneshaw WTP	62	100	0.5	2.4	1.4	100
Penola IRP	64	98.4	0.3	1.4	1.0	100
Pinnaroo IRP	63	100	0.7	1.5	1.1	100
Port MacDonnell	104	100	0.4	1.6	1.0	100
Quorn	51	100	0.4	1.5	1.0	100
Renmark WTP	215	100	<0.1	2.4	1.1	100
Robe IRP	64	100	0.6	1.3	1.0	100
Summit WTP	483	100	N/A	N/A	N/A	-
Swan Reach Town WTP	63	100	0.3	1.7	1.0	100
Swan Reach WTP	467	100	N/A	N/A	N/A	-
Tailem Bend WTP	301	100	N/A	N/A	N/A	-
Tarpeena IRP	64	100	0.6	1.7	1.0	100
Waikerie WTP	71	100	0.3	2.4	1.3	100
Warooka	52	100	0.6	1.3	1.0	100
Wilmington	52	100	0.3	1.8	0.9	100
Woolpunda	75	100	N/A	N/A	N/A	-

[^] Chlorinated systems only.

++ E. coli should not be detected in samples of drinking water. Although we aim for 100% compliance, the ADWG recognise that occasional detections may occur. In accordance with the guidelines any detection is immediately investigated and corrective action implemented as agreed with SA Health.

* Limit of reporting (LOR) values replaced with LOR/2.

[#] Prior to calculating % compliance for health related chemicals individual results are rounded to the same number of significant figures as the guideline value in the ADWG (as prescribed in the ADWG and agreed with SA Health).

N/A = not applicable.

Table 4 — *continued*

System	Chlorine Residual – Total [mg/L]^				Total Dissolved Solids [mg/L]			
	Min	Max	Ave*	Health Compliance % [#]	Min	Max	Ave*	Aesthetic Compliance %
ADWG value				≤ 5				≤600
Target				99.8%				
Baramba WTP	N/A	N/A	N/A	-	140	220	190	100
Barossa WTP	N/A	N/A	N/A	-	300	350	330	100
Beachport IRP	N/A	N/A	N/A	-	650	670	660	0.0
Berri WTP	N/A	N/A	N/A	-	150	200	180	100
Blanchetown WTP	N/A	N/A	N/A	-	160	230	200	100
Bordertown	N/A	N/A	N/A	-	490	530	510	100
Cadell WTP	N/A	N/A	N/A	-	140	210	180	100
Coffin Bay	N/A	N/A	N/A	-	430	470	450	100
Cowirra WTP	N/A	N/A	N/A	-	180	290	250	100
Elliston	N/A	N/A	N/A	-	840	850	840	0.0
Eyre South	N/A	N/A	N/A	-	540	600	560	100
Eyre South/Morgan WTP	N/A	N/A	N/A	-	350	490	440	100
Geranium	N/A	N/A	N/A	-	1 400	1 500	1 500	0.0
Glossop WTP	N/A	N/A	N/A	-	130	190	170	100
Happy Valley WTP	N/A	N/A	N/A	-	270	310	290	100
Hawker Desalination WTP	N/A	N/A	N/A	-	350	400	380	100
Kalangadoo IRP	N/A	N/A	N/A	-	540	560	550	100
Kanmantoo WTP	N/A	N/A	N/A	-	190	290	250	100
Kingston SE IRP	N/A	N/A	N/A	-	840	850	840	0.0
Lameroo IRP	N/A	N/A	N/A	-	950	990	970	0.0
Leigh Creek WTP	N/A	N/A	N/A	-	53	92	80	100
Loxton WTP	2.5	5.1	3.6	100	190	220	200	100
Lucindale IRP	N/A	N/A	N/A	-	810	830	820	0.0
Mannum WTP	N/A	N/A	N/A	-	190	260	240	100
Melrose	N/A	N/A	N/A	-	1 400	1 500	1 500	0.0
Middle River WTP	N/A	N/A	N/A	-	490	630	560	75.0
Millicent	N/A	N/A	N/A	-	620	650	630	0.0
Moorook WTP	N/A	N/A	N/A	-	170	220	200	100
Morgan / Swan Reach WTP	0.1	4.0	2.8	100	180	300	240	100
Morgan WTP	<0.1	4.3	2.6	100	210	360	260	100
Mt Burr	N/A	N/A	N/A	-	450	460	450	100
Mt Compass	N/A	N/A	N/A	-	220	320	250	100
Mt Gambier	N/A	N/A	N/A	-	350	360	360	100
Mt Pleasant WTP	N/A	N/A	N/A	-	160	270	220	100

System	Chlorine Residual – Total [mg/L] [^]				Total Dissolved Solids [mg/L]			
	Min	Max	Ave*	Health Compliance % [#]	Min	Max	Ave*	Aesthetic Compliance %
ADWG value				≤ 5				≤600
Target				99.8%				
Murray Bridge WTP	N/A	N/A	N/A	-	190	330	270	100
Mypolonga WTP	N/A	N/A	N/A	-	180	280	250	100
Myponga WTP	N/A	N/A	N/A	-	330	410	360	100
Nangwarry	N/A	N/A	N/A	-	560	630	590	75.0
Naracoorte	N/A	N/A	N/A	-	1 200	1 300	1 300	0.0
Orroroo	N/A	N/A	N/A	-	1 900	2 000	1 900	0.0
Padthaway	N/A	N/A	N/A	-	1 500	1 600	1 600	0.0
Palmer WTP	N/A	N/A	N/A	-	200	250	230	100
Parachilna	N/A	N/A	N/A	-	830	840	830	0.0
Parilla IRP	N/A	N/A	N/A	-	640	670	660	0.0
Penneshaw WTP	N/A	N/A	N/A	-	150	300	230	100
Penola IRP	N/A	N/A	N/A	-	660	660	660	0.0
Pinnaroo IRP	N/A	N/A	N/A	-	690	760	730	0.0
Port MacDonnell	N/A	N/A	N/A	-	690	710	700	0.0
Quorn	N/A	N/A	N/A	-	1 100	1 200	1 100	0.0
Renmark WTP	N/A	N/A	N/A	-	150	200	180	100
Robe IRP	N/A	N/A	N/A	-	710	800	760	0.0
Summit WTP	1.2	4.6	3.1	100	190	340	260	100
Swan Reach Town WTP	N/A	N/A	N/A	-	190	260	230	100
Swan Reach WTP	2.0	4.6	3.2	100	170	340	240	100
Tailem Bend WTP	<0.1	4.0	2.0	100	210	350	290	100
Tarpeena IRP	N/A	N/A	N/A	-	680	730	700	0.0
Waikerie WTP	N/A	N/A	N/A	-	190	230	220	100
Warooka	N/A	N/A	N/A	-	770	790	780	0.0
Wilmington	N/A	N/A	N/A	-	290	330	310	100
Woolpunda	0.9	3.4	2.4	100	200	300	230	100

[^] Chloraminated systems only.

^{*} Limit of reporting (LOR) values replaced with LOR/2.

[#] Prior to calculating % compliance for health related chemicals individual results are rounded to the same number of significant figures as the guideline value in the ADWG (as prescribed in the ADWG and agreed with SA Health).

N/A = not applicable.

Table 4 — continued

System	Colour – True (456nm) [HU]				Turbidity [NTU]			
	Min	Max	Ave*	Aesthetic Compliance %	Min	Max	Ave*	Aesthetic Compliance %
ADWG value				≤ 15				≤ 5
Target								
Baramba WTP	<1	1	<1	100	<0.1	0.27	0.12	100
Barossa WTP	<1	4	1	100	<0.1	1.0	0.14	100
Beachport IRP	<1	<1	<1	100	<0.1	0.14	<0.1	100
Berri WTP	<1	<1	<1	100	<0.1	0.41	0.16	100
Blanchetown WTP	<1	1	<1	100	<0.1	0.24	0.15	100
Bordertown	<1	<1	<1	100	<0.1	0.13	<0.1	100
Cadell WTP	<1	<1	<1	100	0.11	0.19	0.14	100
Coffin Bay	<1	<1	<1	100	<0.1	0.13	<0.1	100
Cowirra WTP	<1	<1	<1	100	<0.1	0.24	<0.1	100
Elliston	<1	<1	<1	100	<0.1	<0.1	<0.1	100
Eyre South	<1	<1	<1	100	<0.1	0.45	<0.1	100
Eyre South/Morgan WTP	<1	<1	<1	100	<0.1	0.21	<0.1	100
Geranium	<1	<1	<1	100	<0.1	0.13	<0.1	100
Glossop WTP	<1	<1	<1	100	<0.1	0.22	0.10	100
Happy Valley WTP	<1	<1	<1	100	<0.1	3.3	0.24	100
Hawker Desalination WTP	<1	<1	<1	100	<0.1	0.14	<0.1	100
Kalangadoo IRP	<1	<1	<1	100	<0.1	0.27	<0.1	100
Kanmantoo WTP	<1	<1	<1	100	<0.1	0.19	<0.1	100
Kingston SE IRP	<1	<1	<1	100	<0.1	0.29	<0.1	100
Lameroo IRP	<1	<1	<1	100	<0.1	0.27	0.12	100
Leigh Creek WTP	<1	<1	<1	100	<0.1	0.16	<0.1	100
Loxton WTP	<1	2	<1	100	<0.1	0.30	<0.1	100
Lucindale IRP	<1	<1	<1	100	<0.1	0.13	<0.1	100
Mannum WTP	<1	<1	<1	100	<0.1	0.21	0.10	100
Melrose	<1	<1	<1	100	<0.1	0.31	0.10	100
Middle River WTP	<1	<1	<1	100	<0.1	0.37	0.11	100
Millicent	<1	<1	<1	100	<0.1	0.48	0.23	100
Moorook WTP	<1	1	<1	100	<0.1	0.18	0.10	100
Morgan / Swan Reach WTP	<1	2	1	100	<0.1	0.62	0.14	100
Morgan WTP	<1	2	1	100	<0.1	2.4	0.12	100
Mt Burr	<1	<1	<1	100	<0.1	0.16	<0.1	100
Mt Compass	<1	<1	<1	100	<0.1	0.30	<0.1	100
Mt Gambier	<1	<1	<1	100	<0.1	0.45	0.14	100
Mt Pleasant WTP	<1	<1	<1	100	<0.1	0.20	<0.1	100

System	Colour – True (456nm) [HU]				Turbidity [NTU]			
	Min	Max	Ave*	Aesthetic Compliance %	Min	Max	Ave*	Aesthetic Compliance %
ADWG value				≤ 15				≤ 5
Target								
Murray Bridge WTP	<1	<1	<1	100	<0.1	5.7	0.33	99.0
Mypolonga WTP	<1	2	<1	100	<0.1	0.28	<0.1	100
Myponga WTP	<1	3	1	100	<0.1	2.8	0.18	100
Nangwarry	<1	<1	<1	100	<0.1	0.59	0.10	100
Naracoorte	<1	<1	<1	100	<0.1	3.3	0.33	100
Orroroo	<1	<1	<1	100	<0.1	0.64	0.11	100
Padthaway	<1	<1	<1	100	0.12	0.36	0.19	100
Palmer WTP	<1	1	<1	100	<0.1	1.1	0.11	100
Parachilna	<1	<1	<1	100	<0.1	0.14	<0.1	100
Parilla IRP	<1	<1	<1	100	<0.1	<0.1	<0.1	100
Penneshaw WTP	<1	<1	<1	100	<0.1	1.2	0.19	100
Penola IRP	<1	<1	<1	100	<0.1	0.14	<0.1	100
Pinnaroo IRP	<1	<1	<1	100	<0.1	0.23	<0.1	100
Port MacDonnell	<1	<1	<1	100	<0.1	0.21	0.12	100
Quorn	<1	<1	<1	100	<0.1	0.13	<0.1	100
Renmark WTP	<1	<1	<1	100	<0.1	0.37	<0.1	100
Robe IRP	<1	<1	<1	100	<0.1	0.13	<0.1	100
Summit WTP	<1	3	1	100	<0.1	0.64	<0.1	100
Swan Reach Town WTP	<1	<1	<1	100	<0.1	0.32	0.12	100
Swan Reach WTP	<1	2	1	100	<0.1	1.1	0.11	100
Tailem Bend WTP	<1	2	<1	100	<0.1	0.43	<0.1	100
Tarpeena IRP	<1	<1	<1	100	<0.1	0.17	<0.1	100
Waikerie WTP	<1	<1	<1	100	<0.1	0.33	0.14	100
Warooka	<1	<1	<1	100	<0.1	0.86	0.16	100
Wilmington	<1	<1	<1	100	<0.1	1.2	0.23	100
Woolpunda	<1	2	1	100	0.13	3.3	0.54	100

* Limit of reporting (LOR) values replaced with LOR/2.

Table 4 — continued

System	pH [pH Units]			Aesthetic Compliance %	Trihalomethanes – Total [µg/L]			Health Compliance % [#]
	Min	Max	Ave*		Min	Max	Ave*	
ADWG value				6.5-8.5				≤ 250
Target								99.8%
Baramba WTP	7.3	7.8	7.5	100	69	127	94	100
Barossa WTP	7.0	10.6	7.5	97.7	123	318	210	87.1
Beachport IRP	7.7	7.9	7.8	100	41	41	41	100
Berri WTP	7.3	7.7	7.5	100	66	108	85	100
Blanchetown WTP	7.1	8.0	7.7	100	86	140	112	100
Bordertown	7.2	7.5	7.4	100	11	11	11	100
Cadell WTP	7.4	8.0	7.7	100	73	123	101	100
Coffin Bay	7.5	8.0	7.8	100	10	10	10	100
Cowirra WTP	7.3	8.0	7.7	100	74	149	100	100
Elliston	7.1	7.9	7.5	100	13	13	13	100
Eyre South	7.2	8.1	7.6	100	14	91	29	100
Eyre South/Morgan WTP	7.6	8.1	7.9	100	69	255	170	97.4
Geranium	7.0	7.2	7.1	100	4	4	4	100
Glossop WTP	7.3	8.0	7.7	100	83	122	103	100
Happy Valley WTP	7.1	8.1	7.5	100	184	247	227	100
Hawker Desalination WTP	8.0	8.1	8.0	100	4	4	4	100
Kalangadoo IRP	7.3	7.7	7.4	100	44	44	44	100
Kanmantoo WTP	7.6	7.8	7.6	100	83	133	109	100
Kingston SE IRP	7.6	7.8	7.7	100	36	36	36	100
Lameroo IRP	7.5	7.9	7.7	100	15	15	15	100
Leigh Creek WTP	7.6	8.4	8.0	100	<4	<4	<4	100
Loxton WTP	8.4	9.4	8.8	20.0	N/A	N/A	N/A	-
Lucindale IRP	7.6	7.8	7.7	100	113	113	113	100
Mannum WTP	7.1	7.8	7.5	100	80	108	91	100
Melrose	7.4	7.6	7.5	100	11	11	11	100
Middle River WTP	6.9	7.3	7.1	100	19	277	139	89.5
Millicent	7.6	7.7	7.6	100	72	72	72	100
Moorook WTP	7.4	8.0	7.8	100	86	126	100	100
Morgan / Swan Reach WTP	8.2	9.4	9.0	2.9	N/A	N/A	N/A	-
Morgan WTP	7.0	9.3	8.8	11.3	72	162	119	100
Mt Burr	7.7	7.9	7.8	100	8	8	8	100
Mt Compass	7.1	7.9	7.6	100	4	4	4	100
Mt Gambier	8.1	8.3	8.2	100	13	24	19	100
Mt Pleasant WTP	7.1	7.8	7.5	100	98	184	148	100

System	pH [pH Units]			Aesthetic Compliance %	Trihalomethanes – Total [µg/L]			Health Compliance % [#]
	Min	Max	Ave*		Min	Max	Ave*	
ADWG value				6.5-8.5				≤ 250
Target								99.8%
Murray Bridge WTP	7.2	8.4	7.6	100	80	238	145	100
Mypolonga WTP	7.2	7.9	7.5	100	89	199	136	100
Myponga WTP	7.0	7.9	7.5	100	148	305	232	67.7
Nangwarry	7.4	7.7	7.5	100	22	22	22	100
Naracoorte	7.7	8.1	7.9	100	173	215	191	100
Orroroo	7.4	7.7	7.5	100	4	4	4	100
Padthaway	7.4	7.8	7.6	100	10	10	10	100
Palmer WTP	7.3	7.7	7.5	100	72	158	104	100
Parachilna	7.9	8.0	8.0	100	<4	<4	<4	100
Parilla IRP	7.4	7.8	7.7	100	18	18	18	100
Penneshaw WTP	7.6	8.1	7.8	100	<4	<4	<4	100
Penola IRP	7.4	7.7	7.6	100	56	56	56	100
Pinnaroo IRP	7.2	7.6	7.5	100	17	17	17	100
Port MacDonnell	8.0	8.3	8.2	100	74	74	74	100
Quorn	7.2	7.6	7.4	100	N/A	N/A	N/A	-
Renmark WTP	7.2	9.3	7.8	90.7	33	167	102	100
Robe IRP	7.8	7.9	7.9	100	51	51	51	100
Summit WTP	7.8	9.3	8.7	15.7	N/A	N/A	N/A	-
Swan Reach Town WTP	7.5	8.2	7.7	100	89	147	110	100
Swan Reach WTP	8.1	9.3	8.9	3.2	N/A	N/A	N/A	-
Tailem Bend WTP	7.0	9.2	8.6	38.5	N/A	N/A	N/A	-
Tarpeena IRP	7.7	7.9	7.8	100	82	82	82	100
Waikerie WTP	7.4	7.8	7.6	100	68	148	100	100
Warooka	7.3	8.0	7.5	100	43	43	43	100
Wilmington	6.0	7.2	6.6	65.4	20	20	20	100
Woolpunda	8.5	9.3	8.9	4.2	N/A	N/A	N/A	-

* Limit of reporting (LOR) values replaced with LOR/2.

Prior to calculating % compliance for health related chemicals individual results are rounded to the same number of significant figures as the guideline value in the ADWG (as prescribed in the ADWG and agreed with SA Health).

Although we aim for 100% health compliance, the ADWG recognise that occasional detections may occur. The ADWG states: "although concentrations of by-products should be kept as low as possible, efforts to achieve this should never jeopardise effective disinfection.". In accordance with the guidelines any detection is immediately investigated and corrective action implemented as agreed with SA Health.

N/A = not applicable.

Table 4 — *continued*

System	Fluoride [mg/L]				Iron – Total [mg/L]			
	Min	Max	Ave*	Health Compliance % [#]	Min	Max	Ave*	Aesthetic Compliance %
ADWG value				≤ 1.5				≤ 0.3
Target				99.8%				
Baramba WTP	0.88	0.93	0.91	100	0.0029	0.0137	0.0075	100
Barossa WTP	0.14	0.98	0.78	100	0.0053	0.0862	0.0268	100
Beachport IRP	0.23	0.25	0.24	100	<0.0005	0.0089	0.0030	100
Berri WTP	0.91	0.95	0.93	100	0.0070	0.0426	0.0209	100
Blanchetown WTP	<0.1	0.13	<0.1	100	0.0106	0.0180	0.0140	100
Bordertown	0.30	0.34	0.32	100	<0.0005	0.0259	0.0058	100
Cadell WTP	<0.1	0.13	<0.1	100	0.0035	0.0042	0.0039	100
Coffin Bay	1.2	1.3	1.3	100	0.0011	0.0022	0.0015	100
Cowirra WTP	<0.1	0.11	<0.1	100	0.0049	0.0138	0.0086	100
Elliston	0.68	0.71	0.70	100	<0.0005	0.0024	0.0010	100
Eyre South	0.42	1.2	0.58	100	<0.0005	0.0223	0.0029	100
Eyre South/Morgan WTP	0.61	0.77	0.68	100	<0.0005	0.0058	0.0026	100
Geranium	1.0	1.0	1.0	100	0.0008	0.0119	0.0070	100
Glossop WTP	<0.1	0.11	<0.1	100	0.0070	0.0348	0.0212	100
Happy Valley WTP	0.28	0.86	0.69	100	0.0065	0.0123	0.0092	100
Hawker Desalination WTP	<0.1	<0.1	<0.1	100	0.0006	0.0033	0.0019	100
Kalangadoo IRP	0.11	0.13	0.12	100	0.0036	0.0355	0.0146	100
Kanmantoo WTP	0.10	0.18	0.13	100	0.0014	0.0039	0.0023	100
Kingston SE IRP	0.30	0.31	0.31	100	0.0005	0.0267	0.0047	100
Lameroo IRP	0.60	0.63	0.61	100	0.0092	0.0762	0.0215	100
Leigh Creek WTP	<0.1	<0.1	<0.1	100	0.0098	0.0290	0.0179	100
Loxton WTP	0.87	0.96	0.90	100	0.0017	0.0059	0.0037	100
Lucindale IRP	0.31	0.34	0.33	100	<0.0005	0.0145	0.0052	100
Mannum WTP	0.93	0.95	0.94	100	0.0128	0.0398	0.0260	100
Melrose	1.0	1.1	1.1	100	0.0030	0.0142	0.0070	100
Middle River WTP	<0.1	<0.1	<0.1	100	0.0112	0.0224	0.0162	100
Millicent	1.0	1.1	1.1	100	0.0465	0.0737	0.0581	100
Moorook WTP	<0.1	0.11	<0.1	100	0.0020	0.0133	0.0076	100
Morgan / Swan Reach WTP	0.84	0.95	0.90	100	0.0006	0.0208	0.0070	100
Morgan WTP	0.84	1.0	0.92	100	<0.0005	0.0448	0.0101	100
Mt Burr	0.25	0.27	0.26	100	0.0009	0.0053	0.0030	100
Mt Compass	0.23	0.26	0.24	100	0.0016	0.0032	0.0022	100
Mt Gambier	0.81	0.99	0.90	100	<0.0005	0.0064	0.0007	100
Mt Pleasant WTP	0.78	1.1	0.91	100	<0.0005	0.0076	0.0033	100

System	Fluoride [mg/L]			Health Compliance % [#]	Iron – Total [mg/L]			Aesthetic Compliance %
	Min	Max	Ave*		Min	Max	Ave*	
ADWG value				≤ 1.5				≤ 0.3
Target				99.8%				
Murray Bridge WTP	0.91	0.98	0.95	100	<0.0005	0.0050	0.0039	100
Mypolonga WTP	<0.1	0.12	<0.1	100	0.0078	0.9465	0.2454	75.0
Myponga WTP	0.33	0.90	0.68	100	0.0153	0.1979	0.0666	100
Nangwarry	0.10	0.12	0.11	100	<0.0005	0.0012	0.0007	100
Naracoorte	1.2	1.2	1.2	100	0.0529	0.1448	0.0852	100
Orroroo	1.2	1.4	1.3	100	0.0086	0.0236	0.0135	100
Padthaway	0.11	0.12	0.12	100	0.0167	0.0289	0.0243	100
Palmer WTP	<0.1	0.13	0.10	100	0.0184	0.1001	0.0559	100
Parachilna	0.58	0.64	0.61	100	0.0007	0.0059	0.0027	100
Parilla IRP	0.45	0.47	0.46	100	0.0014	0.0355	0.0102	100
Penneshaw WTP	<0.1	<0.1	<0.1	100	<0.0005	0.0063	0.0022	100
Penola IRP	0.18	0.20	0.19	100	0.0039	0.0728	0.0184	100
Pinnaroo IRP	0.63	0.71	0.67	100	<0.0005	0.0151	0.0089	100
Port MacDonnell	0.77	0.80	0.79	100	<0.0005	0.0034	0.0020	100
Quorn	0.58	0.60	0.59	100	<0.0005	<0.0005	<0.0005	100
Renmark WTP	0.87	0.95	0.91	100	<0.0005	0.0312	0.0082	100
Robe IRP	0.28	0.32	0.31	100	<0.0005	0.0130	0.0031	100
Summit WTP	0.88	0.97	0.91	100	<0.0005	0.0170	0.0049	100
Swan Reach Town WTP	0.10	0.16	0.12	100	0.0147	0.0388	0.0272	100
Swan Reach WTP	0.84	0.97	0.92	100	<0.0005	0.0095	0.0023	100
Tailem Bend WTP	0.85	0.97	0.90	100	0.0013	0.0237	0.0051	100
Tarpeena IRP	0.18	0.22	0.20	100	0.0025	0.1055	0.0138	100
Waikerie WTP	0.89	0.94	0.92	100	0.0206	0.0342	0.0260	100
Warooka	1.0	1.1	1.0	100	<0.0005	0.0096	0.0037	100
Wilmington	0.13	0.18	0.15	100	0.0171	0.1475	0.0547	100
Woolpunda	<0.1	<0.1	<0.1	100	0.0040	0.1338	0.0399	100

* Limit of reporting (LOR) values replaced with LOR/2.

Prior to calculating % compliance for health related chemicals individual results are rounded to the same number of significant figures as the guideline value in the ADWG (as prescribed in the ADWG and agreed with SA Health).

Table 4 — continued

System	Manganese – Total [mg/L]					Hardness – Total [mg/L]			
	Min	Max	Ave*	Health Compliance % [#]	Aesthetic Compliance %	Min	Max	Ave*	Aesthetic Compliance %
ADWG value				≤ 0.5	≤ 0.1				≤ 200
Target				99.8%					
Baramba WTP	0.0023	0.0096	0.0067	100	100	39	58	53	100
Barossa WTP	0.0005	0.0134	0.0031	100	100	100	126	111	100
Beachport IRP	0.0002	0.0002	0.0002	100	100	265	273	270	0.0
Berri WTP	0.0024	0.0212	0.0090	100	100	40	56	50	100
Blanchetown WTP	0.0008	0.0013	0.0011	100	100	42	62	54	100
Bordertown	<0.0001	0.0001	<0.0001	100	100	248	262	253	0.0
Cadell WTP	0.0007	0.0008	0.0007	100	100	40	58	52	100
Coffin Bay	0.0002	0.0005	0.0003	100	100	219	239	227	0.0
Cowirra WTP	0.0003	0.0004	0.0004	100	100	52	85	67	100
Elliston	<0.0001	<0.0001	<0.0001	100	100	302	306	304	0.0
Eyre South	<0.0001	0.0007	0.0001	100	100	245	292	260	0.0
Eyre South/Morgan WTP	0.0002	0.0015	0.0007	100	100	137	203	180	91.7
Geranium	<0.0001	0.0002	0.0001	100	100	520	565	551	0.0
Glossop WTP	0.0002	0.0008	0.0004	100	100	37	54	48	100
Happy Valley WTP	0.0001	0.0006	0.0003	100	100	107	126	113	100
Hawker Desalination WTP	0.0002	0.0005	0.0003	100	100	103	128	114	100
Kalangadoo IRP	<0.0001	0.0004	0.0002	100	100	337	351	344	0.0
Kanmantoo WTP	0.0004	0.0009	0.0005	100	100	54	85	69	100
Kingston SE IRP	0.0001	0.0003	0.0002	100	100	225	232	229	0.0
Lameroo IRP	0.0007	0.0014	0.0010	100	100	227	234	231	0.0
Leigh Creek WTP	0.0002	0.0003	0.0003	100	100	4	5	5	100
Loxton WTP	0.0013	0.0032	0.0024	100	100	48	62	53	100
Lucindale IRP	<0.0001	<0.0001	<0.0001	100	100	300	315	307	0.0
Mannum WTP	0.0039	0.0069	0.0048	100	100	51	70	62	100
Melrose	<0.0001	0.0005	0.0002	100	100	300	340	324	0.0
Middle River WTP	0.0009	0.0015	0.0012	100	100	70	81	76	100
Millicent	0.0015	0.0019	0.0018	100	100	342	353	347	0.0
Moorook WTP	0.0004	0.0011	0.0008	100	100	46	60	54	100
Morgan / Swan Reach WTP	0.0016	0.0038	0.0026	100	100	47	87	66	100
Morgan WTP	0.0010	0.0063	0.0030	100	100	50	91	70	100
Mt Burr	<0.0001	0.0001	<0.0001	100	100	278	287	284	0.0
Mt Compass	0.0001	0.0003	0.0002	100	100	51	56	54	100
Mt Gambier	<0.0001	0.0002	<0.0001	100	100	165	180	173	100
Mt Pleasant WTP	0.0002	0.0004	0.0003	100	100	48	74	62	100

System	Manganese – Total [mg/L]					Hardness – Total [mg/L]			
	Min	Max	Ave*	Health Compliance % [#]	Aesthetic Compliance %	Min	Max	Ave*	Aesthetic Compliance %
ADWG value				≤ 0.5	≤ 0.1				≤ 200
Target				99.8%					
Murray Bridge WTP	0.0022	0.0045	0.0031	100	100	50	77	67	100
Mypolonga WTP	0.0004	0.0018	0.0008	100	100	52	79	65	100
Myponga WTP	0.0010	0.0042	0.0027	100	100	95	115	101	100
Nangwarry	<0.0001	<0.0001	<0.0001	100	100	334	369	355	0.0
Naracoorte	0.0099	0.0202	0.0145	100	100	339	342	341	0.0
Orroroo	0.0003	0.0004	0.0003	100	100	667	720	689	0.0
Padthaway	0.0003	0.0018	0.0009	100	100	544	583	569	0.0
Palmer WTP	0.0011	0.0033	0.0018	100	100	56	69	63	100
Parachilna	<0.0001	0.0005	0.0002	100	100	292	345	311	0.0
Parilla IRP	<0.0001	0.0003	0.0002	100	100	175	185	179	100
Penneshaw WTP	<0.0001	0.0523	0.0140	100	100	60	80	69	100
Penola IRP	0.0002	0.0006	0.0004	100	100	302	315	307	0.0
Pinnaroo IRP	<0.0001	0.0006	0.0004	100	100	240	248	245	0.0
Port MacDonnell	0.0002	0.0010	0.0006	100	100	19	24	21	100
Quorn	<0.0001	<0.0001	<0.0001	100	100	468	480	473	0.0
Renmark WTP	0.0020	0.0038	0.0029	100	100	43	62	52	100
Robe IRP	<0.0001	0.0002	0.0001	100	100	108	133	116	100
Summit WTP	0.0016	0.0666	0.0064	100	100	52	81	68	100
Swan Reach Town WTP	0.0009	0.0012	0.0010	100	100	50	77	63	100
Swan Reach WTP	0.0017	0.0080	0.0032	100	100	48	84	62	100
Tailem Bend WTP	0.0004	0.0072	0.0022	100	100	58	97	74	100
Tarpeena IRP	0.0002	0.0004	0.0003	100	100	384	390	387	0.0
Waikerie WTP	0.0025	0.0095	0.0059	100	100	51	61	57	100
Warooka	<0.0001	0.0003	0.0001	100	100	311	327	319	0.0
Wilmington	0.0003	0.0100	0.0022	100	100	104	130	118	100
Woolpunda	0.0011	0.0224	0.0066	100	100	52	62	57	100

* Limit of reporting (LOR) values replaced with LOR/2.

Prior to calculating % compliance for health related chemicals individual results are rounded to the same number of significant figures as the guideline value in the ADWG (as prescribed in the ADWG and agreed with SA Health).

Table 5

2017-18 remote Aboriginal community source water quality

System Name	Total Dissolved Solids [mg/L]			Hardness – Total [mg/L]			pH [pH Units]		
	Min	Max	Ave*	Min	Max	Ave*	Min	Max	Ave*
Amata	560	1 100	730	278	509	378	7.4	7.7	7.5
Davenport [^]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Gerard [#]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Indulkana	180	1 500	1 200	300	528	410	6.5	7.7	6.9
Kalka	520	620	570	319	356	336	7.7	7.8	7.8
Kaltjiti	410	1 300	1 000	283	348	314	7.6	8.0	7.8
Kanpi	1 000	1 300	1 200	221	540	429	7.6	8.1	7.9
Mimili	940	1 500	1 200	155	314	246	7.8	8.0	7.9
Murputja	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nepabunna ⁺	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nyapari	950	950	950	324	324	324	7.7	7.7	7.7
Oak Valley ⁺	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pipalyatjara	670	750	710	380	444	398	7.5	7.9	7.7
Pointt Pearce [^]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pukatja	380	720	590	193	325	262	7.5	7.8	7.7
Raukkan [^]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Umuwa	360	420	390	226	259	244	7.6	7.8	7.7
Watinuma	670	990	800	334	390	358	7.6	8.1	7.8
Yalata	8 500	8 800	8 700	3 060	3 220	3 145	6.9	7.7	7.2
Yunyarinyi	380	570	480	215	302	252	7.7	7.8	7.7

* Limit of reporting (LOR) values replaced with LOR/2.

[^] System fed from another SA Water supply. Refer to data in Country Source Water Quality Table 3. Davenport fed from Morgan WTP, Point Pearce fed from Morgan WTP and Swan Reach WTP, and Raukkan fed from Tailem Bend WTP.

[#] Refer to Loxton WTP data in Country Source Water Quality Table 3.

⁺ System sourced from Rainwater.

N/A = not applicable.

System Name	Colour – True (456nm) [HU]			Fluoride [mg/L]			Nitrate + Nitrite as Nitrogen [mg/L]			Turbidity [NTU]		
	Min	Max	Ave*	Min	Max	Ave*	Min	Max	Ave*	Min	Max	Ave*
Amata	<1	<1	<1	0.68	1.2	0.90	1.20	7.11	3.35	<0.1	0.46	0.12
Davenport [^]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Gerard [#]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Indulkana	<1	<1	<1	0.42	0.63	0.57	<0.003	10.9	7.72	<0.1	120	11
Kalka	<1	<1	<1	0.82	1.0	0.89	4.79	9.27	6.30	<0.1	0.28	0.18
Kaltjiti	N/A	N/A	N/A	1.3	1.6	1.4	7.60	10.8	9.04	<0.1	3.9	0.57
Kanpi	<1	<1	<1	1.2	2.0	1.68	3.28	6.50	4.38	0.14	0.38	0.22
Mimili	N/A	N/A	N/A	2.0	2.7	2.3	0.437	18.3	11.4	<0.1	0.20	0.11
Murputja	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nepabunna ⁺	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nyapari	<1	<1	<1	2.0	3.2	2.6	5.11	5.11	5.11	0.40	0.40	0.40
Oak Valley ⁺	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pipalyatjara	<1	<1	<1	0.33	0.72	0.62	6.01	8.17	7.20	<0.1	0.31	0.15
Point Pearce [^]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pukatja	<1	<1	<1	1.0	1.8	1.4	0.525	3.05	1.39	<0.1	1.1	0.25
Raukkan [^]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Umuwa	<1	<1	<1	0.85	0.99	0.93	4.27	5.35	4.84	<0.1	0.12	<0.1
Watinuma	<1	<1	<1	1.1	1.3	1.2	4.31	5.09	4.67	0.14	0.37	0.25
Yalata	N/A	N/A	N/A	0.39	0.75	0.56	0.607	1.23	0.931	<0.1	1.3	0.49
Yunyarinyi	<1	<1	<1	1.5	1.6	1.6	3.23	8.63	6.08	<0.1	0.15	<0.1

* Limit of reporting (LOR) values replaced with LOR/2.

[^] System fed from another SA Water supply. Refer to data in Country Source Water Quality Table 3. Davenport fed from Morgan WTP, Point Pearce fed from Morgan WTP and Swan Reach WTP, and Raukkan fed from Tailem Bend WTP.

[#] Refer to Loxton WTP data in Country Source Water Quality Table 3.

⁺ System sourced from rainwater.

N/A = not applicable.

Table 6

2017-18 remote Aboriginal community drinking water distribution systems – customer tap water quality against Australian Drinking Water Guidelines

System	<i>E.coli</i> [per cfu/100mL]		Chlorine Residual – Free [mg/L] [^]			
	Samples	Health Compliance % [#]	Min	Max	Ave [*]	Health Compliance % [#]
ADWG Value		++				≤ 5
Target		99.8% Free				99.8%
Amata	4	100	N/A	N/A	N/A	-
Davenport	11	100	N/A	N/A	N/A	-
Gerard	11	100	<0.1	0.4	0.1	100
Indulkana	4	100	N/A	N/A	N/A	-
Kalka	4	100	N/A	N/A	N/A	-
Kaltjiti	3	100	N/A	N/A	N/A	-
Kanpi	4	100	N/A	N/A	N/A	-
Mimili	3	100	N/A	N/A	N/A	-
Murputja	1	100	N/A	N/A	N/A	-
Nepabunna	4	100	N/A	N/A	N/A	-
Nyapari	4	75.0	N/A	N/A	N/A	-
Oak Valley	4	100	N/A	N/A	N/A	-
Pipalyatjara	4	100	N/A	N/A	N/A	-
Point Pearce	12	100	N/A	N/A	N/A	-
Pukatja	4	100	N/A	N/A	N/A	-
Raukkan	11	100	N/A	N/A	N/A	-
Umuwa	4	100	N/A	N/A	N/A	-
Watinuma	4	100	N/A	N/A	N/A	-
Yalata	4	100	N/A	N/A	N/A	-
Yunyarinyi	4	100	N/A	N/A	N/A	-

[^] Chlorinated systems only. Majority of the remote Aboriginal communities use UV as the mode of primary disinfection instead of chlorine.

⁺⁺ *E. coli* should not be detected in samples of drinking water. Although we aim for 100% compliance, the ADWG recognise that occasional detections may occur. In accordance with the guidelines any detection is immediately investigated and corrective action implemented as agreed with SA Health.

^{*} Limit of reporting (LOR) values replaced with LOR/2.

[#] Prior to calculating % compliance for health related chemicals individual results are rounded to the same number of significant figures as the guideline value in the ADWG (as prescribed in the ADWG and agreed with SA Health).

N/A = not applicable.

System	Chlorine Residual – Total [mg/L]^				Total Dissolved Solids [mg/L]			
	Min	Max	Ave*	Health Compliance % [#]	Min	Max	Ave*	Aesthetic Compliance %
ADWG Value				≤ 5				≤ 600
Target				99.8%				
Amata	N/A	N/A	N/A	-	730	730	730	0.0
Davenport	0.1	3.9	2.4	100	250	250	250	100
Gerard	N/A	N/A	N/A	-	200	200	200	100
Indulkana	N/A	N/A	N/A	-	140	140	140	100
Kalka	N/A	N/A	N/A	-	540	540	540	100
Kaltjiti	N/A	N/A	N/A	-	510	510	510	100
Kanpi	N/A	N/A	N/A	-	1 300	1 300	1 300	0.0
Mimili	N/A	N/A	N/A	-	190	190	190	100
Murputja	N/A	N/A	N/A	-	820	820	820	0.0
Nepabunna	N/A	N/A	N/A	-	83	83	83	100
Nyapari	N/A	N/A	N/A	-	850	850	850	0.0
Oak Valley	N/A	N/A	N/A	-	14	14	14	100
Pipalyatjara	N/A	N/A	N/A	-	690	690	690	0.0
Point Pearce	0.3	2.8	1.8	100	250	250	250	100
Pukatja	N/A	N/A	N/A	-	450	450	450	100
Raukkan	<0.1	1.1	0.3	100	230	230	230	100
Umuwa	N/A	N/A	N/A	-	390	390	390	100
Watinuma	N/A	N/A	N/A	-	930	930	930	0.0
Yalata	N/A	N/A	N/A	-	58	58	58	100
Yunyarinyi	N/A	N/A	N/A	-	260	260	260	100

[^] Chloraminated systems only. Majority of the remote Aboriginal communities use UV as the mode of primary disinfection.

^{*} Limit of reporting (LOR) values replaced with LOR/2.

[#] Prior to calculating % compliance for health related chemicals individual results are rounded to the same number of significant figures as the guideline value in the ADWG (as prescribed in the ADWG and agreed with SA Health).

N/A = not applicable.

Table 6 — continued

System	Colour – True (456nm) [HU]				Turbidity [NTU]			
	Min	Max	Ave*	Aesthetic Compliance %	Min	Max	Ave*	Aesthetic Compliance %
ADWG Value				≤ 15				≤ 5
Target								
Amata	N/A	N/A	N/A	-	N/A	N/A	N/A	-
Davenport [^]	N/A	N/A	N/A	-	<0.1	0.13	<0.1	100
Gerard	N/A	N/A	N/A	-	<0.1	2.3	0.53	100
Indulkana	N/A	N/A	N/A	-	N/A	N/A	N/A	-
Kalka	N/A	N/A	N/A	-	N/A	N/A	N/A	-
Kaltjiti	N/A	N/A	N/A	-	N/A	N/A	N/A	-
Kanpi	<1	<1	<1	100	0.36	0.36	0.36	100
Mimili	N/A	N/A	N/A	-	N/A	N/A	N/A	-
Murputja	<1	<1	<1	100	<0.1	<0.1	<0.1	100
Nepabunna	N/A	N/A	N/A	-	N/A	N/A	N/A	-
Nyapari	<1	<1	<1	100	0.12	0.12	0.12	100
Oak Valley	N/A	N/A	N/A	-	N/A	N/A	N/A	-
Pipalyatjara	N/A	N/A	N/A	-	N/A	N/A	N/A	-
Point Pearce [^]	N/A	N/A	N/A	-	<0.1	0.35	0.12	100
Pukatja	N/A	N/A	N/A	-	N/A	N/A	N/A	-
Raukkan [^]	N/A	N/A	N/A	-	<0.1	0.28	0.14	100
Umuwa	N/A	N/A	N/A	-	N/A	N/A	N/A	-
Watinuma	<1	<1	<1	100	<0.1	<0.1	<0.1	100
Yalata	N/A	N/A	N/A	-	N/A	N/A	N/A	-
Yunyarinyi	N/A	N/A	N/A	-	N/A	N/A	N/A	-

* Limit of reporting (LOR) values replaced with LOR/2.

[^] System fed from another SA Water supply. Refer to data in Country Supply Table 4. Davenport fed from Morgan WTP; Point Pearce fed from Morgan WTP and Swan Reach WTP; and Raukkan fed from Taillem Bend WTP

N/A = not applicable.

System	pH [pH Units]				Trihalomethanes – Total [µg/L]			
	Min	Max	Ave*	Aesthetic Compliance %	Min	Max	Ave*	Health Compliance % [#]
ADWG Value				6.5-8.5				≤ 250
Target								99.8%
Amata	7.9	7.9	7.9	100	N/A	N/A	N/A	-
Davenport	7.9	9.2	8.7	18.2	N/A	N/A	N/A	-
Gerard	7.7	7.7	7.7	100	155	155	155	100
Indulkana	7.8	7.8	7.8	100	N/A	N/A	N/A	-
Kalka	8.1	8.1	8.1	100	N/A	N/A	N/A	-
Kaltjiti	7.8	7.8	7.8	100	N/A	N/A	N/A	-
Kanpi	7.9	7.9	7.9	100	N/A	N/A	N/A	-
Mimili	7.2	7.2	7.2	100	N/A	N/A	N/A	-
Murputja	7.9	7.9	7.9	100	N/A	N/A	N/A	-
Nepabunna	7.4	7.4	7.4	100	N/A	N/A	N/A	-
Nyapari	7.9	7.9	7.9	100	N/A	N/A	N/A	-
Oak Valley	7.0	7.0	7.0	100	N/A	N/A	N/A	-
Pipalyatjara	7.9	7.9	7.9	100	N/A	N/A	N/A	-
Point Pearce	8.8	9.2	9.0	0.0	N/A	N/A	N/A	-
Pukatja	8.1	8.1	8.1	100	N/A	N/A	N/A	-
Raukkan	7.9	8.8	8.2	90.9	N/A	N/A	N/A	-
Umuwa	8.1	8.1	8.1	100	N/A	N/A	N/A	-
Watinuma	8.2	8.2	8.2	100	N/A	N/A	N/A	-
Yalata	6.7	6.7	6.7	100	N/A	N/A	N/A	-
Yunyarinyi	8.1	8.1	8.1	100	N/A	N/A	N/A	-

* Limit of reporting (LOR) values replaced with LOR/2.

[#] Prior to calculating % compliance for health related chemicals individual results are rounded to the same number of significant figures as the guideline value in the ADWG (as prescribed in the ADWG and agreed with SA Health).

N/A = not applicable.

Table 6 — continued

System	Fluoride [mg/L]				Iron – Total [mg/L]			
	Min	Max	Ave*	Health Compliance % [#]	Min	Max	Ave*	Aesthetic Compliance %
ADWG Value				≤ 1.5				≤ 0.3
Target				99.8%				
Amata	0.94	0.94	0.94	100	0.0059	0.0059	0.0059	100
Davenport [^]	N/A	N/A	N/A	-	N/A	N/A	N/A	-
Gerard	<0.1	<0.1	<0.1	100	0.1974	0.1974	0.1974	100
Indulkana	<0.1	<0.1	<0.1	100	0.0046	0.0046	0.0046	100
Kalka	0.85	0.85	0.85	100	0.0016	0.0016	0.0016	100
Kaltjiti	0.64	0.64	0.64	100	<0.0005	<0.0005	<0.0005	100
Kanpi	1.6	1.6	1.6	0.0	0.6280	0.6280	0.6280	0.0
Mimili	0.28	0.28	0.28	100	<0.0005	<0.0005	<0.0005	100
Murputja	3.1	3.1	3.1	0.0	<0.0005	<0.0005	<0.0005	100
Nepabunna	<0.1	<0.1	<0.1	100	0.0130	0.0130	0.0130	100
Nyapari	2.0	2.1	2.1	0.0	0.0143	0.0143	0.0143	100
Oak Valley	<0.1	<0.1	<0.1	100	<0.0005	<0.0005	<0.0005	100
Pipalyatjara	0.67	0.67	0.67	100	0.0023	0.0023	0.0023	100
Point Pearce [^]	N/A	N/A	N/A	-	N/A	N/A	N/A	-
Pukatja	1.0	1.0	1.0	100	<0.0005	<0.0005	<0.0005	100
Raukkan [^]	N/A	N/A	N/A	-	N/A	N/A	N/A	-
Umuwa	0.90	0.90	0.90	100	0.0006	0.0006	0.0006	100
Watnuma	1.1	1.1	1.1	100	0.0094	0.0094	0.0094	100
Yalata	<0.1	<0.1	<0.1	100	0.0007	0.0007	0.0007	100
Yunyarinyi	0.75	0.75	0.75	100	0.0272	0.0272	0.0272	100

* Limit of reporting (LOR) values replaced with LOR/2.

[#] Although we aim for 100% compliance, the ADWG recognise that occasional detections may occur. In accordance with the guidelines any detection is immediately investigated and corrective action implemented as agreed with SA Health.

[#] Prior to calculating % compliance for health related chemicals individual results are rounded to the same number of significant figures as the guideline value in the ADWG (as prescribed in the ADWG and agreed with SA Health).

[^] System fed from another SA Water Supply. Refer to data in Country Supply Table 4. Davenport fed from Morgan WTP; Point Pearce fed from Morgan WTP and Swan Reach WTP; and Raukkan fed from Tailem Bend WTP.

N/A = not applicable.

System	Manganese – Total [mg/L]					Hardness – Total [mg/L]			
	Min	Max	Ave*	Health Compliance % [#]	Aesthetic Compliance %	Min	Max	Ave*	Aesthetic Compliance %
ADWG Value				≤ 0.5	≤ 0.1				≤ 200
Target				99.8%					
Amata	0.0002	0.0002	0.0002	100	100	362	362	362	0.0
Davenport [^]	N/A	N/A	N/A	-	-	N/A	N/A	N/A	-
Gerard	0.0021	0.0021	0.0021	100	100	56	56	56	100
Indulkana	0.0003	0.0003	0.0003	100	100	89	89	89	100
Kalka	<0.0001	<0.0001	<0.0001	100	100	312	312	312	0.0
Kaltjiti	<0.0001	<0.0001	<0.0001	100	100	124	124	124	100
Kanpi	0.0003	0.0003	0.0003	100	100	484	484	484	0.0
Mimili	<0.0001	<0.0001	<0.0001	100	100	31	31	31	100
Murputja	<0.0001	<0.0001	<0.0001	100	100	279	279	279	0.0
Nepabunna	0.0015	0.0015	0.0015	100	100	3	3	3	100
Nyapari	0.0002	0.0002	0.0002	100	100	271	271	271	0.0
Oak Valley	0.0016	0.0016	0.0016	100	100	5	5	5	100
Pipalyatjara	0.0001	0.0001	0.0001	100	100	384	384	384	0.0
Point Pearce [^]	N/A	N/A	N/A	-	-	N/A	N/A	N/A	-
Pukatja	<0.0001	<0.0001	<0.0001	100	100	230	230	230	0.0
Raukkan [^]	N/A	N/A	N/A	-	-	N/A	N/A	N/A	-
Umuwa	<0.0001	<0.0001	<0.0001	100	100	235	235	235	0.0
Watinuma	0.0001	0.0001	0.0001	100	100	336	336	336	0.0
Yalata	0.0018	0.0018	0.0018	100	100	10	10	10	100
Yunyarinyi	0.0114	0.0114	0.0114	100	100	118	118	118	100

* Limit of reporting (LOR) values replaced with LOR/2.

[#] Prior to calculating % compliance for health related chemicals individual results are rounded to the same number of significant figures as the guideline value in the ADWG (as prescribed in the ADWG and agreed with SA Health).

[^] System fed from another SA Water Supply. Data available in Country Supply Table 4. Davenport fed from Morgan WTP, Point Pearce fed from Morgan WTP and Swan Reach WTP, and Raukkan fed from Tailem Bend WTP.

N/A = not applicable.

