

2016-17 South Australian Water Corporation **Annual Report**

FOR THE YEAR ENDING 30 JUNE 2017



Government of
South Australia



SA Water



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LETTER OF TRANSMITTAL

30 September 2017

The Honourable Ian Hunter MLC
Minister for Water and the River Murray

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 2017.

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 to be accurate for the purposes of annual reporting to the Parliament of South Australia.

Yours sincerely



Carolyn Pickles
Acting Chair



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MESSAGE FROM THE CHAIR



SA Water is an organisation with a 160 year history of providing clean, safe water and reliable sewerage services to South Australians. This responsibility drives the Board and the entire SA Water team to continuously improve what we do and to strive to be the service provider our customers expect and deserve. We understand the importance of world class services to the economic growth of South Australia and, equally importantly, to the quality of life of every South Australian.

The 2016-17 year was a time of positive change and initiative at SA Water. Working with Chief Executive Roch Cheroux, the Board has supported the new vision for the future – *world class water services for a better life* – and a strategy to achieve it. There is a positive energy at SA Water, with a clear direction for the future.

The year had many highlights. Initiatives to improve customer service delivery were prioritised, as were innovative capital works and improvement programs. The release of the mySAWater portal means customers have more convenient access, complemented by online and social media communication channels.

Technological improvements are also enhancing our ability to promptly respond to service interruptions and, in the future, to best utilise real-time information about the state of our network.

SA Water met its financial targets and worked with the Essential Services Commission of South Australia on our customer service performance standards and delivery of the commitments made in our Regulatory Business Proposal 2016 (RBP 2016). We also work closely with the Department of Health and the Environment Protection Authority to ensure we meet public health and environmental standards and expectations.

In all we do, safety remains our first priority. Our intention is that every team member returns home safely each day after work. The Board continue to look for ways to improve safety outcomes and we involve all staff in achieving this goal.

Providing essential services to 1.6 million customers spread across South Australia means the work SA Water undertakes is always diverse and, at times, extremely complex. The Board is proud of what the Corporation has achieved in 2016-17 and looks forward to working with the entire SA Water team to achieve even more in the coming year.

A handwritten signature in black ink, appearing to read 'Carolyn Pickles'.

Carolyn Pickles
Acting Chair



MESSAGE FROM THE CHIEF EXECUTIVE



I am pleased about the progress I have seen across the business during 2016-17 and my first 12 months as SA Water's Chief Executive. During this time we have developed a new vision and strategy for the Corporation, which places our customers at the heart of everything we do, and shapes our day to day decision-making.

**World class water services
for a better life.**

Our vision is guiding our 1 500 SA Water team members towards the future, and we feel positive about our way forward. Our new organisational values reflect the underlying organisational culture, as well as our future direction. *Together we deliver safely, and stand accountable, genuine and innovative every day.*

CUSTOMERS: WE ARE LISTENING AND ACTING

With our customers at the heart of everything we do, we have made some changes to better understand customers' needs, and so deliver our services more effectively. We have realigned the organisation, and as a result we are now more agile and responsive.

Ongoing customer research provides us with the insight to understand what our customers expect from us. This insight builds evidence for us to make sound business decisions.

For example, one area we needed to improve was how we interact with customers following an incident which

affects them personally, like a disruption to their water service on account of a water main break requiring repair or a water shut off for maintenance. As a result, we have created a team dedicated to community support. This fantastic team supports customers face to face when they need it, to improve communication and reduce service disruptions and any associated impact.

Maintaining affordable water and sewerage prices remains a priority for us. We are listening to our customers and will continue to work hard to keep prices as low and stable as possible. During the past four years, SA Water customers have seen a 6.5 per cent decrease in combined water and sewerage bills, with an \$87 in average per customer reduction for 2016-17 year only.

SAFETY

Many of our team are in roles which expose them to safety hazards and risks, for example working in confined spaces, working near traffic while undertaking pipe repairs, operating heavy machinery, and driving, sometimes long distances. We continue to work on programs to bring safety to the front of mind of our entire workforce. We must deliver safely, every single day, and the safety of our team members and the community we work with must always come first.

WORLD CLASS

In the past 12 months we have continued to introduce world class technologies in Adelaide. For example, in our laboratories where our water quality experts at the Australian Water Quality Centre (AWQC) are using

advanced DNA equipment to analyse a simple water sample, to determine exactly what organisms, including plants, animals and bacteria, have been in contact with that water source. This is a first in the water industry in Australia and the opportunities ahead are near limitless.

Another world class project delivered in 2016-17 is a smart network for Adelaide's CBD. A tailored design of sensors underneath the city streets are transmitting real-time information to us on how the water network is performing. We are using these devices to listen to the sounds of our network, better understand water use and pressure, and prevent potential service disruptions before they impact our customers and the community.

In the past year we have made good progress on key projects including dam upgrades at Kangaroo Creek in the Adelaide Hills and Tod on the Eyre Peninsula; energy efficiency improvements namely at the Glenelg and Bolivar Wastewater Treatment Plants; a refurbishment of our largest metropolitan water storage tank at Hope Valley; and major sewer network upgrades for the Adelaide CBD, Victor Harbor and Lobethal. We also announced we would increase our investment into replacing water mains by an additional 100 kilometres. By the end of 2020, we will have renewed 375 kilometres of pipe across the state. All will have a positive effect on water security and quality, and enable future growth in South Australia.

LEW OWENS

We farewelled Lew Owens as the Chair of our Board, and I would like to thank him for his contribution over the past six years and his support since I have joined SA Water. Lew's dedication and support has been outstanding. In addition, his connection with and understanding of issues affecting the South Australian Aboriginal community has been instrumental in the development and launch of our Reconciliation Action Plan.

I am proud of the work everyone at SA Water has delivered so far and I know we are all committed to do more to achieve our vision of *World Class Water Services for a Better Life*.



Roch Cheroux
Chief Executive



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SA Water

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

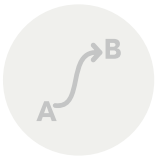
SA Water is South Australia's leading provider of water and sewage services for around 1.6 million people. For more than 160 years we have been working together with South Australians to ensure a reliable supply of safe, clean water and a dependable sewerage system. We are committed to ensuring our services represent excellent value.

SA Water is a statutory corporation reporting to an independent Board, and is included within the portfolio of the Minister for Water and the River Murray. The Minister is accountable to the South Australian public for the delivery of efficient and effective water and sewerage services.

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

- Department of Premier and Cabinet
- Department of Treasury and Finance
- Department of Environment, Water and Natural Resources
- SA Health
- Environment Protection Authority.





STRATEGY

PRIORITISING OUR WORK TO ACHIEVE OUR GOALS

Customers shaped our vision: *World class water services for a better life.*

Our strategy sets our path as we work towards this vision, guiding the decisions we make, with goals specified below. Our values set the way we work to achieve these, safely delivering essential water and used water services every day.



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 live our values with actions and behaviours to safely deliver for our customers every day. Our team are valued brand ambassadors.

KEEPING IT SIMPLE

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



YEAR IN REVIEW

CUSTOMER EXPERIENCE

KEEPING OUR CUSTOMER AT THE HEART

During 2016-17, we have continued to focus on improving the customer services we know are valued. We established a customer experience team, in order to better understand customer insights and help our team convert these into improved outcomes for customers.

We measure our customers' satisfaction with their service experience on an ongoing basis. Our overall 2016-17 customer satisfaction was 80 per cent, which was slightly below our target of 82.5 per cent.

Our focus for 2016-17 has been on building our capability to keep customers informed, via their preferred method, about what is happening with their water and sewerage services and resolving customer issues when they arise as quickly as possible.

PROVIDING DIGITAL SOLUTIONS

We understand that our customers value multiple channels of communication, with many preferring to interact with us via digital methods. Our digital program has given our customers more choice in the way they can interact with us.

A number of digital transformation projects were implemented including:

- automated payment extension service
- an updated, user friendly website, including improved fault information
- a new online fault lodgement form
- an [interactive map](#) showing when and where water mains are being replaced, as well as details on pipes within the existing network.

All these digital solutions were developed in consultation with customers throughout the design, build and trial phases which was critical to the success of the program.

Ongoing digital programs for 2017-18 include:

- mySAWater
- implementation of new payment options
- improved outage notifications and fault information for customers via SMS, email and online.

ENABLING MOBILE AND RESPONSIVE FIELD TEAMS

The development and adaptation of technology during 2016-17 has improved the way field teams work. During the year, field mobility tools were implemented, together with enhanced network access, wi-fi hot spots at depots/workshops, and a new app linked to our work planning system. The Work Order app enables field teams to receive and perform work in the field, as well as the ability to capture data about our assets and customer related information.

The Work Order app was designed taking into account customer feedback and insights as part of a program of work, ensuring we are continuously developing innovative solutions to meet our customers' expectations both now and into the future.

Deploying the Work Order app to a workforce located across the state proved a challenge, with 450 people

across 19 South Australian locations, as far north-west as Streaky Bay and as far south-east as Mount Gambier. Extensive trialling of all technology and hands-on training for 500 staff, together with onsite technical support proved successful with continued customer delivery service.

By moving away from a paper based work system, our people have the ability to be more mobile, more responsive and more effective in providing information to our customers about service interruptions and restorations. Further key benefits have been the reduction in the amount of resources needed to support field data entry, and the amount of data rework when in the field.

Our priority for 2017-18 is deploying the Work Order app to additional teams including alliance partner Allwater in order to standardise work systems across metro and non-metropolitan areas.

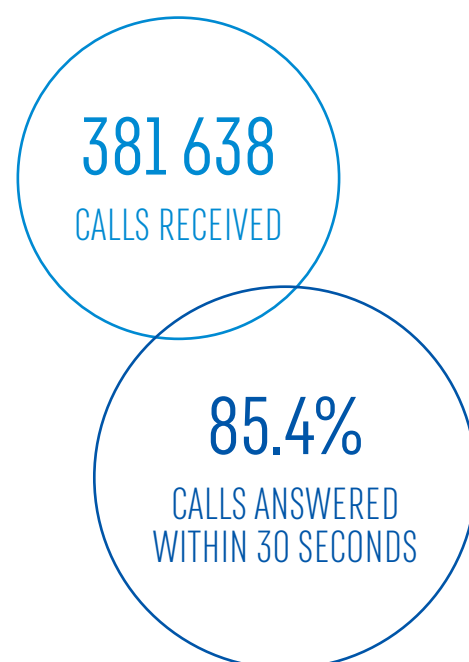
WORKING TOGETHER WITH ALLWATER

We have entered into the seventh year of the Adelaide Services Alliance with Allwater.

The Alliance delivers water and used water services to more than 1.2 million people across the metropolitan area. It provides front line services to operate and maintain metropolitan Adelaide's water supply including 9 000 kilometres of water mains and six water treatment plants (WTPs). In addition, Allwater's scope of works covers operations and maintenance of 7 200 kilometres of sewer mains, six wastewater treatment plants and various recycled water schemes.

Major achievements of the Alliance across metropolitan Adelaide during 2016-17:

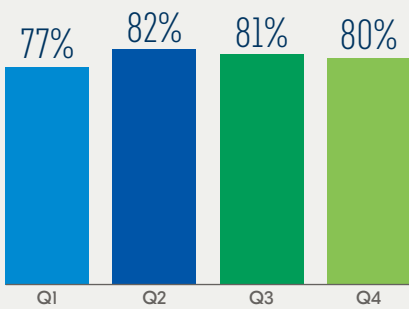
- improved nitrogen removal for water going to the Gulf St Vincent was achieved at all metropolitan wastewater treatment plants (WWTP) with more than 4 600 tonnes of nitrogen removed through the Bolivar treatment plant
- the Glenelg WWTP achieved the lowest total nitrogen levels to the Gulf to date
- energy production was increased at the WWTPs with an additional 660 MWh produced at the Bolivar WWTP and 200 MWh Glenelg WWTP, compared with 2015-16
- new technology and field apps have empowered field crews, including the new Shut-Off app, a smart phone tool to better manage customer outages and protect critical customers
- supported the successful delivery of significant capital works, including Glenelg WWTP inlet works, supervisory control and data acquisition (SCADA) projects, Northern WTP projects, Bolivar primary tanks and major network projects (Darlington Upgrade, Torrens to Torrens, O-Bahn City Access)
- a new contract for waste management delivering savings of approximately 10 per cent, as well as diverting a significant volume of waste from landfill, reducing energy and transport costs.





DELIVERING CUSTOMER SATISFACTION

Our customer care centre continues to meet set Service Level Standards and maintain customer satisfaction, with results remaining consistent across all four quarters.



As part of our continual improvement, a new complex enquiries team was created with agents from across the customer care centre to deal with all customer correspondence. Despite the fact we began the first half of 2016-17 below our Service Level Standards, and established a new team, we managed to meet our annual target of answering 95 per cent of written correspondence within 10 working days.

Further developments in reducing the number of calls to our customer care centre have been implemented together with the digital team, by offering self-help options for simple and low-level enquiries.

Another improvement in customer experience was to bring 100 per cent of customer calls in-house.

SUPPORTING OUR CUSTOMERS

Our community support team has continued to evolve throughout 2016-17 to provide an improved support response for our customers and the wider community who experience an extended service interruptions, or property/personal damage as a result of a fault such as a main break.

By working closely with Allwater, communications and claims management teams we are keeping processes simple and our customers as the focus. One initiative implemented is customer care packs; information given to impacted customers detailing the support SA Water provides further to incidents. One-on-one case management is also provided to resolve issues including property cleaning, temporary accommodation and assistance with the insurance claims process.

During 2016-17 our community support team responded to more than 1 000 incidents with an average attendance of 97 per cent against our target rate of 95 per cent. The team provided a tailored support response to 278 customers who had experienced property or personal damage with 227 customers having their claim paid and issues fully resolved.

During 2017-18 we will continue developing and improving our processes and systems to ensure they are efficient, integrated and continue to focus on customer outcomes.

SUPPORTING BILL PAYMENT

Our customer assist program is part of our early intervention strategy to engage with and help customers at risk of not being able to meet their financial responsibility. In 2016-17, more than 5 000 residential customers participated, with 2 065 customers successfully completing the program. Of the participating customers, 243 received free water audits or emergency plumbing assistance.

The program matches customer fortnightly payments towards their water bill, with a quarterly credit towards their bill as incentive to pay. In 2016-17, more than 1 920 quarterly credits were applied, valued at \$120 000, with an average customer quarterly credit of \$60.

IMPROVING WATER SERVICES FOR ADELAIDE

With customers central to our business, the use of smart technology will help us to better understand how the network is operating at any given moment and where the stress points are.

From 30 June 2017, the industry-leading smart network in Adelaide CBD became operational, achieving a major milestone in our pilot program that has been a focus throughout 2016-17.

The trial has been installed in the Adelaide CBD due to a number of factors including the higher potential impact and disruption to customers from water main breaks and leaks. This is based on the number of customers including water-dependent businesses, and consistently busy traffic areas.

While this type of technology has been tested and proven by water utilities around the world, we are the first Australian water utility to deploy it on this scale and use the information in real time to manage our water network.

As the smart network has been operational since 30 June 2017, only early performance metrics are available. We are at the beginning of the journey to realise the full benefits of the technology. While the smart network is already providing useful information on the performance of the network, water main breaks and leaks will still occur from time to time.

Our focus going forward is learning how to best use the smart network data and understand what is happening in the CBD water network, in real-time as well as using that information to enhance and further develop the system. The full benefits of this CBD pilot project are expected to be realised in early 2018.

Once tested and proven, we will look to adopt this innovative and emerging technology across other parts of our network. This is likely to start in the wider metropolitan area and then to major regional hubs, before covering our water network statewide. Planning for this wider roll out will continue through 2017.





DELIVERING DRINKING WATER TO REMOTE COMMUNITIES

Throughout 2016-17 we continue to deliver a safe and sustainable drinking water supply to our customers in some of the harshest and most challenging environments in Australia.

A major challenge for the year was managing localised flooding of bore water infrastructure at [Oak Valley](#) after a period of intense rainfall. The entire bore field was underwater, resulting in some bores being under flood waters to a depth of 1.8 metres.

Further issues were identified including the bore's electronics either not working or not serviceable, coupled with long-serving pumps that were not operable or removable. To ensure supply, replacement bore holes were sunk.

Working closely with Department of Environment Water and Natural Resources (DEWNR), SCADA equipment was back online and operational for monitoring back in Adelaide.

Continued supply during works was available from a reticulated rainwater system as an interim measure to supply our customers. The outcome resulted in maintaining a quality of life and ensuring water restrictions were not required. Continual two way communications with the local community was maintained throughout.



Aerial view showing bore OVMB-10



Aerial view showing former water storage 'shed tank'. Three bores located in the water to the left of the shed structure.

ENGAGING WITH OUR CUSTOMERS

We engage with the community through education programs, site tours, expos, presentations, as well as market and social research.

Through these activities we aim to increase our reach into the community to share and test ideas, hear feedback and raise awareness about our operations to supply water and used water services to South Australian households and businesses.

Feedback gained through community and customer engagement has helped shape our corporate strategy and ensures there is a direct link between our strategic direction and our customer value. By sharing our customers' stories to teams within SA Water, we can consider customer needs and expectations in decision making, planning and operations.



We have continued to run a number of community events and student learning programs throughout 2016-17 including:

- our Brainwave program, with 9 723 students participating
- tours of the Adelaide Desalination Plant and Kauwi Interpretive Centre by 2 253 people
- tours of water and used water treatment plants as well as presentations about water services reaching 1 060 people
- Quench Benches at a range of public events across South Australia providing water to more than one million people
- 15 sponsorship partner organisations, events and programs
- more than 200 000 downloads of our online apps such as *Let the Poo Thru*.



FEEDBACK GAINED THROUGH
COMMUNITY AND CUSTOMER
ENGAGEMENT HAS HELPED SHAPE
OUR CORPORATE STRATEGY AND
ENSURES THERE IS A DIRECT LINK
BETWEEN OUR STRATEGIC DIRECTION
AND OUR CUSTOMER VALUE.





WATER SECURITY, WATER QUALITY AND SANITATION

BUILDING RESILIENCE

As a step change to becoming a more resilient organisation, we merged our Emergency Management Policy and Business Continuity Policy into a single Organisational Resilience Policy. This single policy incorporates multiple areas across the business including IT continuity, physical security, risk management and cultural resilience.

The planning and consolidation of policy to develop an Organisational Resilience Policy proved beneficial and effective during the storms of September 2016, and state-wide power outage. Through these events, we were able to continue to operate as a result of effective planning.

As reflected in the *Independent review of the extreme weather event South Australia 28 September – 5 October 2016*, we were able to ensure the supply of water and sewerage services, avoiding service disruptions and any potential health risks. Impacts due to the power outage were managed. Close liaison with SA Power Networks enabled a co-ordinated approach to electricity management and restoration.

Continued collaboration between asset management and resilience teams to ensure better understanding of the Corporation's critical functions and build-in resilience with existing and upgraded infrastructure will make resilience part of our future planning modelling.



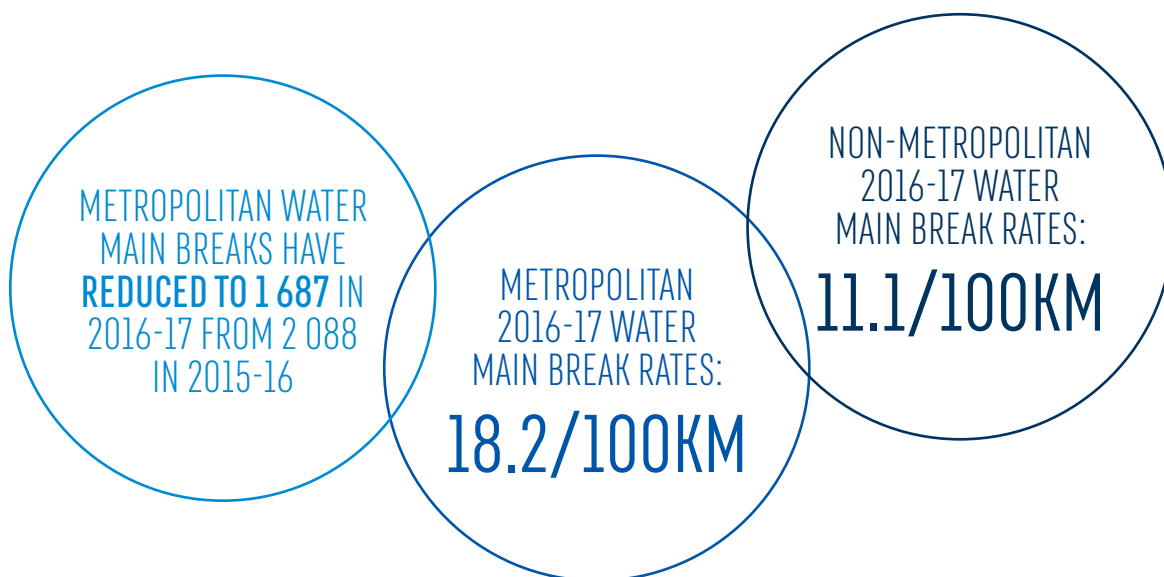
“SA WATER’S BUSINESS CONTINUITY POLICY ARRANGEMENTS ENSURED THE SUPPLY OF WATER AND SEWER NETWORK, AVOIDING PUBLIC HEALTH ISSUES.”

INDEPENDENT REVIEW OF THE EXTREME WEATHER EVENT SOUTH AUSTRALIA 28 SEPTEMBER - 5 OCTOBER 2016

MEETING CUSTOMER EXPECTATIONS

Customer expectations of our performance have shifted over the past 12 months. Our customer engagement team explored these expectations with customers in surveys and workshops and, from their feedback, we adjusted our performance targets.

Our main focus was for an improved level of service and reliability of our water services. To achieve new targets an additional \$55 million was required to be invested to increase the renewal length on the pipe replacement program plus install additional shut off valves across the network.



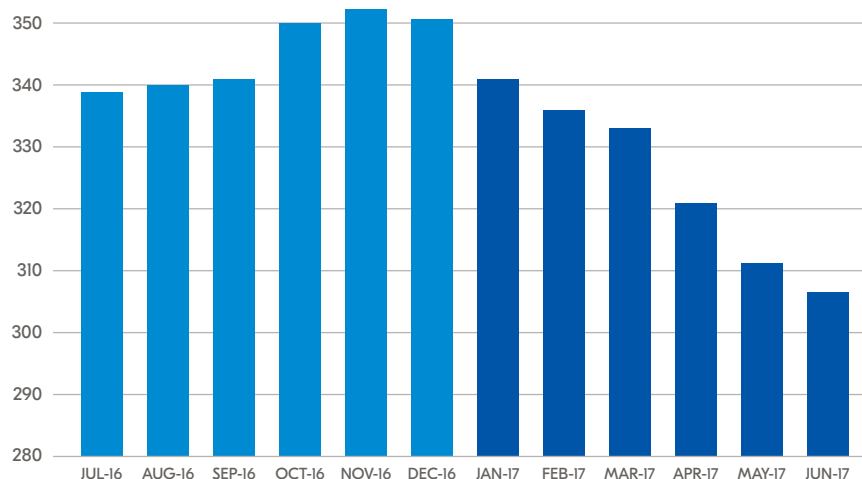
The reviewed targets increased the delivery from 15 kilometres to 40 kilometres of water main renewal during 2016-17. The target length of water main renewal was increased by 250 per cent and time to delivery decreased by 35 per cent. The water main renewal program across all disciplines met the challenge, including planning, project management, stakeholder engagement, environmental services, engineering design, network operations, construction contractors and construction auditing.

The additional program focused on arterial road water main renewals with the aim to reduce the number of incidents with significant traffic impact. Historical poor performance was also assessed.

Decreasing rate of water main failures

Since beginning the acceleration of water main renewals in January 2017, the water network performance has significantly improved. The rate of water main breaks has steadily decreased to 18.2 failures/100 kilometres per year by June 2017, from 22.5 failures/100 kilometres per year as at late 2016. This rate is expected to continue to decrease while we deliver an accelerated program and we anticipate meeting our revised target of 16.8 failures/100 kilometres per year.

State-wide water main breaks – 12 month rolling average



The reduction in water main breaks in 2016-17 has resulted in fewer service interruptions to our customers and subsequently improved attendance by our crews.

This builds on our *National Performance Report (NPR) 2015-16: urban water utilities ranking*. In 2015-16 the national median for water main breaks was 21.4 per 100 kilometres of pipe. For the same period, our main break rate was 14.9 breaks per 100 kilometres of water main, ranking mid-range, including when compared with the 44 like utilities of the 86 across urban Australia.

Innovation for customer benefit

As part of our program we have trialled new methods and techniques including:

- trenchless method of mains renewal on Grand Junction Road
 - › reducing impact of construction works
- water main lining technique for rehabilitation of water mains in Berri
 - › reducing costs and impact of renewals.

Continued significant water main renewals across the state

The revised increase in the water main replacement program will continue for the next three years. In order to deliver this increased length a tailored framework model has been set up by procurement to increase efficiencies with a single contractor.



BORDERTOWN'S POOCHER SWAMP MYSTERIES UNCOVERED

A \$500 000, six-year study into Poocher Swamp and the limestone aquifers it supplies has given us a unique understanding of how Bordertown's fresh water source refills. The research was the largest study ever conducted into Poocher Swamp's groundwater system, and confirmed the size of the aquifer and how it can provide Bordertown residents with a sustainable supply of drinking water.

The aquifer is a precious resource for Bordertown, and an inspiring feature of the natural environment. The Poocher Swamp aquifer network is an oasis of fresh groundwater surrounded by brackish water. These new findings on the aquifer's size and the limestone cavity networks will help us operate the borefield and plan the long-term security of Bordertown's water supply, safeguarding it for future generations to enjoy.

Bordertown relies on a groundwater supply refilled by water draining through runaway holes in Poocher Swamp and flowing through a hidden, underground network of limestone cavities leading into the aquifer.

The extensive study also assessed how the flows from Tatiara Creek into Poocher Swamp impact both the security and quality of the underground supply. Bacteria and other microbes in the raw water bond to limestone particles and are removed from the water as it flows through the porous rock, allowing the aquifers to act as a natural filter. The limestone aquifers are a highly effective natural filter and complement the treatment processes that we follow to ensure our Bordertown customers receive high-quality, clean and safe water from the area's bores.

We worked with local landowners with assistance from the Department of Environment, Water and Natural Resources (DEWNR) and specialist geophysical contractors to complete the research into this groundwater resource.

Researchers used the NanoTEM technique, which sends an electromagnetic pulse into the ground and records the signals that bounce back. Comparing signals from the ground with data collected on rock formations in boreholes enabled us to build up a detailed picture of the underground water system.

GREENING REMOTE SCHOOL OVAL

Instead of using potable water for irrigation of the school grounds in Amata Aboriginal Community, we investigated available technology and feasibility of the treatment and reticulation of used water for use on the oval.

A contract to supply a wastewater treatment plant, installation and civil works was awarded at the end of 2016, with tenders for installation and civil works starting in 2017-18. The Amata used water reuse project team is working closely with Department for Education and Child Development, Defence Housing Australia, Nganampa Health, and the Amata Aboriginal community to ensure the success in having the first grassed oval in the Anangu Pitjantjatjara Yankunytjatjara (APY) Lands.



SUPPORTING LEIGH CREEK

The management of water and used water services in Leigh Creek was transferred from Flinders Power to SA Water for five years. This is part of the State Government's commitment to helping secure the social and economic future of Leigh Creek and supporting the continuation of an essential service.

From 14 December 2016, we began operating for all related pipework, storage tanks, a series of bores, a used water treatment plant and a desalination plant.

We have taken responsibility for providing bulk water to the Lyndhurst Progress Association and the Outback Communities Authority for their separate provision of water to respective customers in Lyndhurst and Copley in the Leigh Creek region.

We have an existing presence in the region, and have employed three new staff in the township to support operations at Quorn, Crystal Brook and Port Augusta.

WORKING TOGETHER WITH COMMUNITIES

We engage with customers, communities and stakeholders in the planning and delivery of capital and business development projects. Some of the key engagements undertaken during 2016-17 follow.

The Tod River dam safety upgrade included working with local government, property owners and other community members on the Eyre Peninsula to identify and address potential issues in the lead up to and during construction of the safety upgrade. A number of community information sessions were held and a community reference group was established to exchange information, discuss issues of importance and to enable the community to have input to project outcomes.

With additional investment and an expanded schedule, the key focus for the delivery of the water main renewal program in the metropolitan area was early, ongoing and consistent engagement. Impacted customers were provided with timely information about upcoming works. Businesses were contacted to determine their water requirements and inform the scheduling of interruptions to minimise impacts. We worked closely with our alliance partner, Allwater, and contractors to provide construction updates in a timely manner and ensure stakeholder requirements were understood.

Engagement for the proposed Northern Adelaide Irrigation Scheme involved briefings with industry groups, government agencies and the Northern Adelaide Plains community. A key issue for community is the storage of recycled water to support the scheme. To address this, we established a community committee that had input to storage options and developed guidelines. These represent criteria that the community have requested be addressed for the establishment of recycled water storage in the Northern Adelaide Plains.

Planning for the Hope Valley tank upgrade saw a number of community information sessions held to inform residents of the upcoming works, including vegetation and construction impacts to nearby properties. Engagement gained support for the project and secured input into landscaping plans.

Engagement with the Sandy Creek community supported the construction of a new wastewater pump station that met acceptable noise levels. The community had influence on the building amenity, including noise mitigation, design and landscaping.



IMPROVING OUR ASSETS

We manage a range of large projects across South Australia. Projects are initiated for a range of reasons including:

- making sure our networks can support population growth and increased demand
- proactively maintaining and fixing our networks
- improving the quality of the services we provide
- reducing risks around flooding, safety or environmental impacts
- reducing our impact on the environment through recycling and reuse.

The following projects are key projects from 2016-17.

Western Adelaide Wastewater Network Upgrade Project

The Western Adelaide Wastewater Network upgrade during 2016-17 involved the installation of a new trunk main to increase the capacity for Adelaide's CBD and inner southern and eastern suburbs.

There were challenges delivering this project relating to stakeholder impact, safety and continuity of services. Stakeholder impact was managed through our stakeholder engagement group, particularly in the forward planning stages of the work. The safety and technical issues were addressed through the selection of an experienced contractor who was part of our panel of Tier 1 contractors. We also engaged an experienced construction manager to work closely with the contractor and monitor safety, quality, environmental and stakeholder issues on a daily basis.

The work to install the new pipeline was completed on schedule and with no significant safety, quality, environmental or stakeholder issues.

The long term benefits include extending the service life of the used water systems for the CBD and south-eastern suburbs by up to 30 years.

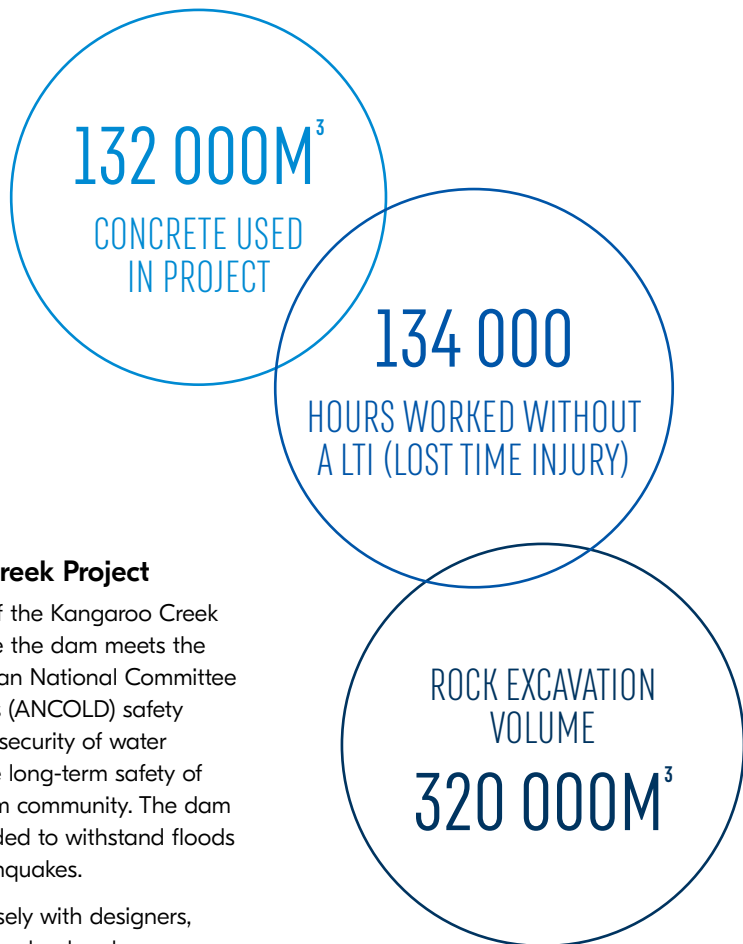
Glenelg Wastewater Treatment Plant Inlet Works Upgrade

The construction and commissioning of the Glenelg WWTP inlet works, Anderson Avenue Pumping Station Refurbishment, and the Odour control plant was a significant project for 2016-17.

The completion of these works benefit our customers by:

- reducing odour levels being emitted from the treatment plant
- extending asset life
- increasing reliability of the plant inlet works and pump station
- reducing the risk of environmental overflow incidents due to improved operating conditions
- reducing energy use and minimising greenhouse gas emissions at new inlet.

Continual performance monitoring of the completed works will occur to measure effectiveness.



Victor Harbor Wastewater Capacity Upgrade

The construction of the pipeline was critical to ensure the Fleurieu Recreational Aquatic Complex was able to open on time in March 2017 to meet community expectations.

The delivery schedule was tight with deep trench construction required in a number of places coupled with higher than average rainfall while works were undertaken which raised the water table and provided a difficult construction environment.

The Fleurieu Recreational Aquatic Complex is a valuable addition to the people of Victor Harbor. We have provided a reliable used water connection that is able to eliminate the likelihood of overflows and odour along the old coastal main. It has provided a long term solution to provide capacity to support residential and commercial growth.

Kangaroo Creek Project

The upgrade of the Kangaroo Creek dam will ensure the dam meets the current Australian National Committee on Large Dams (ANCOLD) safety guidelines, the security of water supply, and the long-term safety of the downstream community. The dam is being upgraded to withstand floods as well as earthquakes.

We worked closely with designers, reviewers and contractors to re-scope the project. Measures were taken to limit the impact of the floods and works continued on spillway excavation during this time to ensure that works were able to continue.

Our priorities for the Kangaroo Creek dam upgrade in 2017-18 are:

- complete the rock excavation of the spillway
- widen and improve the downstream spillway embankment
- complete the outlet extension works
- start concrete works in the spillway
- install cofferdams to ensure the ongoing safety of the downstream public during construction.



SA HEALTH STATEMENT

In 2016-17 SA Water complied with all requirements of the *Safe Drinking Water Act 2011* (SDW Act) and maintained supply of safe drinking water to South Australia.

SA Water operated drinking water supplies were extensively tested for health-related parameters to produce a total of 40 942 analytical results. Compliance with the *Australian Drinking Water Guidelines* (ADWG 2011) for *E. coli* was achieved in 99.91 per cent of metropolitan Adelaide samples and 99.95 per cent of country samples. Overall compliance with the ADWG for health-related parameters was 99.84 per cent for metropolitan systems and 99.66 per cent for country areas.

Operation of the interagency *Water/Wastewater Incident Notification and Communication Protocol* was maintained successfully throughout the period. The total number of incidents reported by SA Water in 2016-17 was higher than previous years.

Above average rainfall, warmer than average temperatures and poor water quality in the River Murray resulted in increased numbers of incidents due to detection of enteric protozoa, cyanobacteria, elevated concentrations of disinfection by-products and elevated filtered water turbidity compared to 2015-16.

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

South Australia's SDW Act took effect from 1 March 2013. The audit and inspection schedule started from 1 July 2014. We successfully completed the third yearly audit and met all legislative requirements.

The SDW 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 SDW Act are underpinned by the ADWG (2011) 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 SDW Act
- use of National Association of Testing Authorities, Australia (NATA) 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. We provide water quality testing reports for metropolitan and country water supplies on a monthly basis with results showing a high level of compliance. In April 2017, we successfully completed the third yearly audit. A number of representatives of our drinking water supplies were audited to satisfy the requirement of the SDW Act. We met the legislative requirement for all metropolitan, country and remote community supplies.

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

We also provide additional information regarding water quality which can be found on our website.

DELIVERING SAFE, CLEAN WATER

We demonstrated robust management of water quality by consistently providing safe, clean drinking water to our customers despite the challenges posed during 2016-17, by the water quality in the River Murray as a result of flooding and the blackwater event.

The following table provides a summary of our performance for health-related parameters of routine samples at customer taps during 2016-17.

State-wide, metropolitan and country drinking water supply systems health related performance (2016-17)

HEALTH RELATED PARAMETERS	STATE-WIDE SYSTEMS (NUMBER OF TEST ANALYTES)	METROPOLITAN SYSTEMS (NUMBER OF TEST ANALYTES)	COUNTRY SYSTEMS (NUMBER OF TEST ANALYTES)
Samples free from <i>E. coli</i>	99.94% (11 211)	99.91% (3 340)	99.95% (7 871)
Samples compliant with ADWG health parameters*	99.71% (40 942) 2016-17 target: 99.80%	99.84% (12 204) 2016-17 target: 100%	99.66% (28 738) 2016-17 target: 99.80%

*includes performance against *E. coli*

Note that direct exceedances of the Australian Drinking Water Guidelines were used rather than the 95th percentiles for compliance of individual chemical parameters

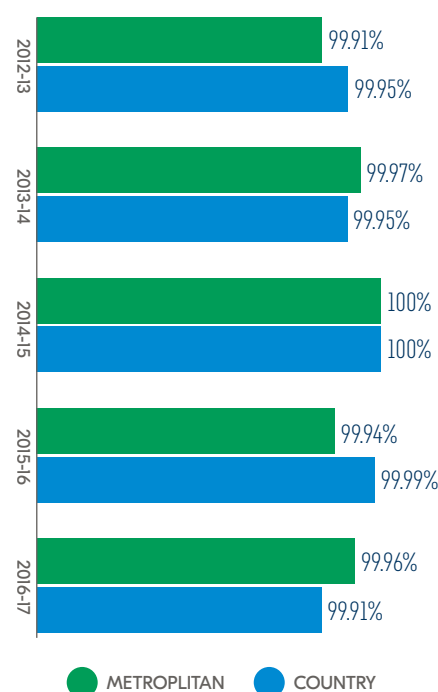
Our water quality performance against the ADWG health parameters was marginally below target for the state-wide, metropolitan and country measures. This result can be largely attributed to disinfection by-product (DBP) exceedances. In systems fed from the River Murray a short term increase in DBP exceedances were seen as a result of the blackwater event. DBP's also exceeded across a number of other metropolitan and country systems as a result of challenging source water conditions. More information on the blackwater event can be found on pg 29.

The ADWG recognise that occasional detections 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 SA Water and corrective actions implemented as agreed, including providing information to our customers as appropriate.

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

During the year, we identified systems where we were below target and proactively implemented management strategies to address these situations. Such measures included flushing of systems, additional disinfection, immediate follow-up sampling and close communication with SA Health.

E. coli compliance at metropolitan and country drinking water supply system customer taps since 2012 (customer tap samples free from *E. coli*)



A blurred photograph of two school children running in a schoolyard. The child in the foreground is a boy in a light blue shirt and dark pants, running towards the right. Behind him is a girl in a light blue shirt and dark skirt, also running. The background shows a brick wall and a window with a red frame. The text is overlaid on the left side of the image.

WE DEMONSTRATED
ROBUST MANAGEMENT
OF WATER QUALITY BY
CONSISTENTLY PROVIDING
SAFE, CLEAN DRINKING
WATER TO OUR CUSTOMERS.





CATCHMENT TO TAP

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

This management system is based on the Framework for Management of Drinking Water Quality outlined in the ADWG that is endorsed by the National Health and Medical Research Council (NHMRC). 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.

Achievements in 2016-17:

- successful outcome of SA Health's annual SDW Act audit
- overall finding indicated that SA Water and its contract partners consistently meet the requirements of the SDW Act, Regulations, SA Health audit report and ADWG
- we demonstrated extensive and comprehensive water quality management planning. The standard of supporting systems was high, and all twelve elements of the ADWG Framework were fully implemented.

Key highlights of the SDW Act audit include:

- our detailed Risk Management Plans for all water supply systems, supported by monitoring program inclusive of all relevant microbial, physical, chemical and radiological parameters
- national best practice for water quality verification monitoring and reporting
- continuous on line monitoring for water filtration, sedimentation and disinfection with additional treatment such as augmented coagulation, powdered activated carbon, MIEX, and aeration, at some locations to remove organic matter
- robust operational checks at critical control points, e.g. continuous on line monitoring at primary chlorination and ultra-violet disinfection systems.

We achieved our performance measure targets against the 12 elements of the ADWG Framework for the management of drinking water quality. We improved our ADWG water quality management framework implementation percentage from 94.3 per cent (2015-16) to 95.1 per cent during 2016-17, exceeding the 2016-17 target of 95.0 per cent.

The performance was measured through AQUALITY, the ADWG performance evaluation tool developed by the Water Services Association of Australia.

The SDW Act auditor commented that a management score of 95 per cent indicates a mature DWQMS for a water utility.

We have worked toward improving and developing new documentation to manage water quality hazards and risks; ensure customer feedback is responded to in a consistent and equitable manner; provide direction to operators in relation to customers who are dialysis users; and to achieve water quality target objectives.

A tool that will help record and manage actions relating to quality hazards, incidents and operational improvements has been implemented. The tool strengthens our risk based water quality management in line with the SDW Act.

The above achievements were met in collaboration with business services, asset, operations and delivery, communications and engagement, people and safety, our contract partners (Allwater, TRILITY) and Department for Health and Ageing.

Future improvements proposed for 2017-18 include:

- developing enhanced strategies and initiatives, in line with the SDW Act, to meet regulatory requirements including operational procedures, validation and revalidation of control processes, training and reporting.

continuing use of the AQUALITY tool to determine strategies that will help us to continue to meet our customers' expectations.

BATTLING BLACKWATER

Blackwater is a natural phenomenon that can occur after heavy rainfall when organic material such as leaves and wood from floodplains is washed into waterways, like the River Murray. As the organic matter starts to decompose, the water becomes dark in appearance and has a strong unpleasant smell.

Throughout November 2016 to January 2017, South Australia experienced a blackwater event. There have been three blackwater events in the past six years, with the most recent event being most severe.

The blackwater event of 2016-17 presented significant challenges to water treatment and maintaining the integrity of drinking water quality. To minimise the impacts to our drinking water customers, we undertook a number of proactive measures both prior to, and during the event.

Initially, we closely monitored the development of the blackwater event in New South Wales and Victoria. We maintained contact with the Murray Darling Basin Authority (MDBA), who together with Water NSW provided us with updates on the River Murray water quality, specifically dissolved oxygen, within the eastern states and associated tributaries.

Once it was determined the blackwater would reach South Australia, proactive management strategies were enacted. An action plan was formed and communication with relevant stakeholders who were critical in managing the impending event were involved.

Key actions taken to manage the event were:

- water treatment process changes to reduce risks of nitrification and disinfection by-product formation. Process changes were also made to improve the aesthetic quality of treated water (taste and appearance)
- network modifications such as temporary dosing facilities and reducing water age to improve disinfection and minimise potential health risks to customers
- communication channels were established between interstate agencies, including upstream Victorian WTPs, the Production and Treatment team and South Australian WTPs, to rapidly share operational water quality information
- intensified monitoring at WTPs and strategic locations upstream to enable rapid process changes at treatment plants.

Our implementation of these strategies meant that despite this blackwater event being the most severe in the past decade, nitrification was minimised to isolated pockets which recovered rapidly; barriers to microbiological contamination were maintained (no major incidents reported); and disinfection by-product formation was minimised.

This is a significant achievement given the source water challenges presented, and ensured health risks to customers were minimised throughout the event.

MANAGING WATER QUALITY

We are committed to work within the *Australian Drinking Water Guidelines (ADWG 2011) Framework for Management of Drinking Water Quality*. The framework includes two components for the management of incidents and emergencies; communication and incident, and emergency response protocols.

We have a *Water Quality Incident and Emergency Management Protocol*. This is in line with the interagency *Water/Wastewater Incident Notification and Communication Protocol* that is maintained by SA Health to adopt the principles of ADWG 2011 and satisfy requirements of the SDW Act and Safe Drinking Water Regulations 2012.

SA Health defines three types of health related incident classifications based upon a precautionary approach as outlined below.

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.

Type 1 incident notification

An incident that, without appropriate response or intervention, could cause serious risk to human health.

Type 2 incident notifications

An incident that, without appropriate response or intervention, represents a low risk to human health.



Below 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*.

REPORTING PERIOD	PRIORITY TYPE 1	TYPE 1	TYPE 2
2016-17*	2	48	159
2015-16	4	32	74
2014-15	1	43	84
2013-14	3	34	87
2012-13	4	67	89
2011-12	2	88	121
2010-11*	5	111	172
2009-10	9	88	135

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

*Impacted by River Murray blackwater event

All Priority Type 1 and Type 1 notifications were immediately reported to SA Health, while all Type 2 notifications were reportable within 24 hours, in line with the interagency *Water/Wastewater Incident Notification and Communication Protocol*.

In 2016-17 the numbers of incident notifications increased overall when compared with 2015-16, primarily as a result of the challenges associated with the blackwater event within the River Murray. However, incident numbers remained lower than 2010-11 when a blackwater event of similar magnitude occurred. This was due to the implementation of more proactive water quality management strategies and knowledge gained from previous events.

During 2016-17, we continued our focus on early detection and reporting to external agencies, briefing the Minister for Water and the River Murray, ensuring prompt corrective action and addressing the causes of preventable Type 1 notifications, such as disinfection failures, turbidity failures and disinfection by-products. Strategies employed to achieve this include optimisation of our drinking water quality monitoring program, and capital improvements such as upgrades to filters and filter control systems.

The proactive water quality management of targeted individual water supply systems and detection and management of risks continued during 2016-17. 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 (IRI)

The purpose of the IRI is to drive and guide 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 with the management of water quality incidents, including reporting, initial response and longer term preventive measures. The overall 2016-17 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 2016-17 target: 85%
Incident entered into the incident management system (IMS) in less than two hours	
Initial effective response taken within three hours	
Written report to Minister for Water and the River Murray by 3 pm 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 on our water quality incident response and overall performance, maintaining a score well above our target.

THE INCIDENT RESPONSE INDEX ACHIEVED IN COUNTRY AND METROPOLITAN AREAS AND OVERALL FOR 2016-17 COMPARED TO 2015-16.		
SYSTEM	IRI 2016-17 FINANCIAL YEAR	IRI 2015-16 FINANCIAL YEAR
Country	92%	92%
Metropolitan	99%	97%
Overall (weighted combined country and metropolitan)	94%	93%

During 2017-18, we will:

- continue to improve our new 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 and metropolitan 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.

MONITORING AND TESTING WATER QUALITY

To ensure the quality of the water we provide to our customers, we perform extensive quality monitoring across South Australia, from catchment to tap, including field and laboratory tests.

The purpose of this monitoring is for health and aesthetic compliance as well as operational monitoring to optimise water quality.

Samples are collected by trained field staff to ensure they are taken correctly and field results have a high degree of integrity. Laboratory analyses are carried out by AWQC in accordance with ISO 9001 Quality Systems and the requirements of NATA.

The following table summarises routine monitoring and testing activities in our water supply systems during 2016-17.

Number of sample taps and test analytes – metropolitan and country water supply systems (2016-17)

DRINKING WATER SYSTEMS	METROPOLITAN	COUNTRY	TOTAL
Supply systems	8	60	68
Customer taps	195	295	490
Catchment to tap sample taps*	380	928	1 308
Catchment to tap routine test analytes	80 530	292 534	373 064

*Includes drinking water customer taps

GROWTH FOR AUSTRALIAN WATER QUALITY CENTRE'S (AWQC) LABORATORIES

The AWQC Melbourne laboratory celebrated its first full year of operation, having opened for business in February 2016.

During the first year of operation, focus has been on growing the testing capabilities of the Melbourne laboratory to better serve AWQC's eastern states customers and building relationships with the Victorian water industry. During the year AWQC further expanded both the microbiological and chemical testing services provided through its Melbourne laboratory.

Two contracts with major interstate water utilities were secured via competitive tendering process, helping create new jobs and further showcase AWQC's expertise. Through the signing of contracts with TasWater and south-western Victorian utility Wannon Water, AWQC is supporting the continued supply of safe clean water to 240 000 plus customers. A four year contract with TasWater began in November for the provision of laboratory testing services covering Tasmania's water and sewerage systems. Analysis of water, recycled water and trade waste samples for Wannon Water began in March and will continue for the next nine years. These contracts have enabled us to expand our Melbourne and Adelaide laboratory operations.



The new business contracted as a result of opening our Melbourne laboratory has generated a total of seven new jobs across AWQC's Adelaide and Melbourne operations, helping to support state economic development and jobs growth for scientific staff in Victoria and South Australia. The opportunity to work closely with two major interstate water utilities to deliver valued services, and to share and build our collective knowledge and skills ultimately supports positive outcomes for our customers.

Our focus is very much about working together in partnership with the water industry to support the delivery of safe drinking water and management of used water systems for community benefit across Australia. We aim to deliver further value to the industry through the expansion of our Melbourne laboratory operations and testing capabilities and capacity.

INTELLIGENT WATER TESTING

The AWQC Adelaide laboratory investigated the use of next-generation sequencing (NGS) and placed into service two world class pieces of robotic laboratory equipment – the *Ion Chef™* and *Ion S5™*. The technology works by placing the entire DNA from a water sample on a single chip in the *Ion Chef™* where each organism's DNA is given a barcode. The *Ion S5™* then reads all the barcoded DNA to tell us all organisms that have been or are in the water, from bacteria to vertebrates.

Transitioning and adapting technology, which has previously been used in cancer genetics, now provide results in a way that can be applied in the water industry and used effectively for making water quality management decisions.

This challenge was overcome by AWQC Molecular Scientists developing special DNA fragments called 'amplicons'. A comprehensive DNA database containing all Australian animals was curated, and also included all animals that are of interest from a water quality management perspective. This allows us to track them if required.

With this cutting edge analytical technology the AWQC Adelaide laboratory has developed DNA testing that is a first in the Australian water industry, being able to read the DNA of all bacteria and animals that have been in contact with water. It is faster, cheaper and delivers more information to customers than conventional methods.

Knowing more about what is in source waters enables us to make more informed decisions on how to treat the water before it is supplied to our customers. With this information we can better tailor treatment processes and initiatives such as catchment management, ensuring we provide highest quality drinking water to South Australians.

Key highlight:

In 2016-17 we processed several hundred samples for NGS diversity profiling, including samples to assist with the search for endangered Platypus in the Adelaide Hills, and recent interest in investigations on the status of the Thylacine.

LEADING THE WAY WITH RESEARCH

We undertake research to generate and implement new knowledge and technology to drive efficiency, performance improvement and innovation for the benefit of our business and ultimately our customers.

This supports infrastructure and capital investment decisions; developing new ways to deal with water quality issues, environmental and public health risks; and evaluation, development and transfer of new technologies into operational outcomes.

Below are some key research projects from 2016-17.

Modelling of coastal discharge impacts

This modelling supported our environmental improvement program (EIP) negotiations with the Environment Protection Authority (EPA) for the Glenelg and Bolivar WWTPs. EIP negotiations required clear communications with service providers and stakeholders (EPA and DEWNR) to prioritise activities and to meet deadlines.

Final delivery of the calibrated and validated Adelaide Receiving Environment Model provides a world-class modelling tool that will allow us to make the best investment decisions to support better environmental outcomes for Adelaide's coastal waters.

The reduction of nitrogen inputs to the Adelaide coast in the order of 1 200 tonnes since 2011 (half from Penrice, half from our wastewater treatment plants) is expected to result in water quality suitable for seagrasses over approximately 75 per cent of the area from which seagrasses were originally lost.

Sodium percarbonate (stabilised hydrogen peroxide) as an alternative algaecide

We developed the use of sodium percarbonate (stabilised hydrogen peroxide) as an alternative algaecide to copper sulphate, which is currently used in Happy Valley Reservoir, and as a potential cyanobacterial control option in the Torrens River.

The evaluation of sodium percarbonate as a new algaecide was tested successfully through field trials in Happy Valley Reservoir and Torrens River. Both trials required organisation and installation of large pieces of equipment in the reservoir and timing this with reservoir algal blooms.

Several in-situ trials of sodium percarbonate were successfully completed providing important information which will be used to develop its use as an algaecide. This knowledge will be used in further trials planned for this financial year at both locations.

Sodium percarbonate as an algaecide will:

- reduce the high disposal costs associated with copper contamination of treatment plant sludge
- potentially oxidise dissolved organics, such as compounds that impair the taste and odour of water and would reduce treatment costs
- in the River Torrens it could potentially reduce the need for environmental flows from Kangaroo Creek, which are currently used to flush cyanobacterial blooms from the city area of the river.

Conducting desktop reviews

As part of our energy strategy, we conducted a desktop review on energy storage to identify technologies that may form part of an appropriate energy storage solution for use with our assets.

A review was also conducted on the management of fats, oils and grease in sewer networks.

This review will be used to set new targets for trade waste customers and has identified an opportunity for using public education to reduce the amounts of fats, oils and grease being added to the sewer network. This will reduce sewer network blockages and benefit customers through improved services



WE UNDERTAKE RESEARCH TO
GENERATE AND IMPLEMENT NEW
KNOWLEDGE AND TECHNOLOGY
TO DRIVE EFFICIENCY,
PERFORMANCE IMPROVEMENT
AND INNOVATION FOR THE
BENEFIT OF OUR BUSINESS AND
ULTIMATELY OUR CUSTOMERS.





ENVIRONMENT

MAINTAINING A HEALTHY CATCHMENT

Reservoir catchment

RESERVOIR CATCHMENT	(FY 2016-17)		
	ACTUAL	FORECAST	VARIANCE
Natural Flows this Month/Metro(ML)	322 689	113 561	+209 127

Inflows for 2016-17 were almost three times the average forecasted scenarios and twice the annual demand of the metro Adelaide.

The approach was to utilise the North South Interconnection Systems Project (NSISP), and transfer more metro Adelaide demand through the Happy Valley WTP to tackle the large inflows through the Onkaparinga catchment.

Catchment management

During 2016-17, our efforts focused on a number of catchment (raw) water quality projects critical to our business, including Cryptosporidium and nutrient investigations in our key metropolitan water supply systems. We investigated the magnitude and timing of pollution entering our reservoirs from our multi-use supply catchments and the natural 'treatment' the catchments and reservoirs can provide. The goal is to get a better understanding of how our natural water delivery system work and how we optimise our water treatment based on the natural treatment capacity of the catchments.

Drinking water quality protection starts in the supply catchments. Maintaining septic or 'onsite waste water management systems' (OWMS) in those residential areas in our supply catchments which are not connected to a sewerage network, forms a critical part in curbing microbial risks in our water supply. Some of the microbes, such as Cryptosporidium, need special treatment.

Around 48 per cent of private septic tanks may fail in the Mount Lofty Ranges, delivering microbial contamination to our drinking water supply catchments. We continue to contribute significantly to the waste control program which assists councils to work with landholders to maintain their residential systems. We need to ensure that councils do the best they can to help residents maintain their septic tanks, to avoid over investment in expensive treatment further downstream.

As part of our continual Cryptosporidium risk assessments across all water quality barriers of our key drinking water systems, we will be investigating Cryptosporidium infectivity and speciation in our catchments associated with water supply to Anstey Hill, Happy Valley and Myponga WTPs throughout 2017-18. This includes intensive Cryptosporidium monitoring during high stream flows, and assessing the magnitude of the 'natural treatment' the reservoir can provide on the water's way to our water treatment plants.

FIVE PRESCRIBED
BURNS LOCATED IN
THE MOUNT LOFTY
RANGES WATERSHED
AND THE EYRE
PENINSULA, COVERING
A TOTAL OF 414HA.

Land and fire management

We continued to implement our extensive annual bushfire prevention maintenance regime across our landholdings to manage the ever-present bushfire risk. We collaborated with other agencies (DEWNR, Country Fire Service and Forestry SA) on bushfire prevention, suppression and prescribed burning under our agreements. We are an active participant in the Heads of Agencies (HoA) collaborative government efforts to keep South Australian communities safe and protect our native vegetation and water resources.

By controlling the vegetation on SA Water land, we are confident that we can better protect our land in the case of a bushfire and prevent significant impacts on our natural vegetation cover. The result is we do not have to cope with additional, more expensive, treatment of the catchment water draining from burnt lands.

A further focus was continuing to work collaboratively with government and the fishing community of South Australia, to enable recreational fishing in up to five offline reservoirs.

ENVIRONMENTAL COMPLIANCE

Compliance with Environment Protection Authority Licence Conditions 2016-17

MEASURES	TARGET	RESULT	ASSESSMENT
Metropolitan and country wastewater treatment EPA licences	100%	100%	Achieved target
Abrasive blasting EPA licences	100%	100%	Achieved target
Treated water transfer EPA licence	100%	100%	Achieved target
Production and disposal of listed waste EPA licences	100%	100%	Achieved target
Discharge of stormwater to underground aquifers EPA licences	100%	97.9%	Target not achieved

Non-compliance with EPA Licence Conditions

A non-compliance was reported in April 2017 against the Barker Inlet Stormwater Scheme. An exceedance of iron was identified, however details of the exceedance were not submitted to the EPA within three working days as outlined in the licence conditions.

Environment Protection Orders

Nil Environment Protection Orders were issued to SA Water between 1 July 2016 and 30 June 2017.

Formal warning

On 4 July 2017, the EPA issued SA Water with a formal warning alleging a breach of the *Environment Protection Act 1993*. This followed notification of a Priority Type 1 incident at the Christies Beach WWTP in May, after 6ML of un-disinfected wastewater was discharged to the environment.

CLIMATE CHANGE COMMITMENT

Our Climate Change Sector Agreement with the SA Government formalises our ongoing commitment to responding to the challenges of climate change by working with our stakeholders and the State Government, while continuing to play a leading role in providing sustainable water services to the community.

A key commitment in the agreement is to progress climate change adaptation, both for SA Water and the wider community. We have been working with local councils and other key stakeholders to progress regional adaptation plans, and looking at the climate risks relating to our service delivery as well as opportunities to contribute to liveability of the state, such as provision of recycled water for state growth.



GREENHOUSE GAS EMISSIONS

PERFORMANCE SUMMARY 2016-17

Net tonnes of greenhouse gas emitted tonnes (CO₂-e) Based on 2016-17 Target	Target: 371 447	Achieved: 265 015
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**The inventory is based on financial year performance and includes some estimates.*

We are continuing to meet our annual greenhouse gas reduction targets which track how we are progressing toward our long term target of emissions no greater than 40 per cent of 1990 levels by 2050. We are also continuing to achieve the target of 20 per cent renewable energy from self-generated and purchased accredited renewable energy sources. We are currently reviewing our targets in light of the State Government target of zero net emissions by 2050.

Emissions reductions initiatives include:

- energy efficiency measures
- increasing renewable energy generation from hydro-electric plants and biogas combustion
- carbon sequestered through our bio-sequestration plantings.

We are also exploring opportunities to participate in the Emissions Reduction Fund administered by the Clean Energy Regulator through opportunities for biodiverse carbon plantings and energy management.

The Climate Change Sector Agreement can be viewed at sa.gov.au

BECOMING A MARKET PARTICIPANT

Enabling us to directly administer electricity market charges in the National Electricity Market, was a major project throughout 2016-17. This required us to register as a market participant, establish information systems and source specialised resources through collaboration with Finance, Human Resources, IT, Operations and Department of Treasury and Finance. It was identified early that we needed to create an agile approach in order to deliver the new information systems and ensure timelines could be achieved.

On 14 June 2017, we achieved registration with Australian Energy Market Operator as a direct market participant and began the transfer of our 1 800 electricity connections from our existing electricity intermediary. In 2017-18 we will see the completion of site transfers from the electricity intermediary to SA Water.

Annual operating expenditure savings of approximately \$0.5 million are anticipated, reducing our regulated operating expenditure and contributing to reduced bills for our water and used water customers.



OUR PEOPLE

IMPROVING SAFETY OUTCOMES

The health and safety of our people is paramount.

Work Health and Safety Services partner with us to identify and manage workplace hazards, monitor and support health and wellbeing and to provide injury management services where a worker has been injured or become ill.

Throughout 2016-17, these programs helped improve safety outcomes and are outlined below.

Musculoskeletal program

Educating and building the capability of our people to identify at risk behaviours that may result in achieving a 43 per cent reduction in musculoskeletal injuries in customer field services.

Preventive hazard management

Engaging business units in practices leading to improved hazard, risk identification and analysis of training needs.

Driver safety

Managing vehicle selection, maintenance, safe loading and safe towing to reduce the likelihood of an incident resulting in an injury. We are also addressing driving and behavioural safety – such as managing driver fatigue risk, minimising driver distraction and management of road rule infringements.

Contractor management

Working together with contractors visiting or working at SA Water premises ensured shared safety outcomes was complemented with 40 contractor forums to share safe systems of work and improvement initiatives.

Working on water

Developed principles for working on, over or near a water body including the management of commercial vessels and employee competency to operate.

Fatigue management

Implemented strategies to manage the risk of fatigue.

Early intervention and return to work

Supporting employees from the occurrence of an incident to recovery and a successful return to work. In 2016-17:

- 98 per cent of injuries reported within 24 hours
- 100 per cent of work injured employees returned to work within three months
- 100 per cent of work injured employees believe their recovery is supported.

Self-care for a healthy mind

Developing the knowledge and capability of our people to maintain and enhance their mental wellbeing with more than half of our people across the business participating in information sessions.

GROWING CAPABILITY

Graduate program

We have continued to support workforce planning through our graduate program. The program places graduates across a variety of disciplines including engineering, science, environment, finance, and information technology.

Three graduates were successful in transitioning from the program into roles within SA Water in 2016-17. We currently have 17 graduates undertaking roles within communications and engagement, engineering, finance, and environment.

Trainees and apprentices

In 2016-17, four water industry trainees started the program, working in our Network Operations area. During this period three water industry trainees completed and moved into ongoing roles. These traineeships will support workforce planning in Operations and Maintenance in the next five years.

We employ apprentices in three vocations:

- electrical (Certificate III in ElectroTechnology)
- fitting and turning (Certificate III in Engineering Trades – Mechanical)
- welder/boilermaker (Certificate III in Engineering Trades – Fabrication).

We employed 14 electrical apprentices, nine fitting and turning apprentices and nine welder/boilermaker apprentices in 2016-17. We employed nine new apprentices during this period. Four successfully won ongoing roles in the business.

Cadetships

Our technical cadetships support the replenishment of para-professionals in our workforce, particularly in regional operations. Cadets were employed in engineering during 2015-16.

We recruited one Technical Engineering Cadet at Crystal Brook during 2016-17, bringing the total number of technical cadets to three.



ACCOUNTABILITY

All employees are required to complete a Personal Achievement and Development Plan (PADP) each year as part of our Employee Performance Cycle with 100 per cent completion across the business.

WORKING TOWARDS RECONCILIATION

Our *Reconciliation Action Plan 2017-20* is an agreed strategy and public commitment of how we will contribute towards reconciliation between Aboriginal and Torres Strait Islander People and other Australians.

During 2016-17, we launched our third formal plan, with a strong focus on stretching our commitment. The stretch targets in the plan provide the opportunity to deepen our impact towards reconciliation through the setting of clear and measurable targets. At the heart of our approach is the principle of working together for mutually agreed outcomes.

Our plan focuses on three key areas:

- people – seeking to grow our Aboriginal and Torres Strait Islander workforce and ensure employees thrive
- partners – supporting Aboriginal and Torres Strait Islander businesses and using our influence to drive mutually benefiting outcomes
- water – supporting communities in new ways with safe, clean water and education.

Initiatives undertaken in 2016-17 include:

- launch and celebrations with local communities on the *Reconciliation Action Plan 2017-20*
- appointment of an external co-chair and Aboriginal Leader, David Rathman, to the Reconciliation Action Plan Committee
- the establishment of an Aboriginal Affairs team within the organisation
- the installation of a Kurna shield and plaque at SA Water's CBD office to honour and recognise the Kurna people, and highlight our commitment to working in a meaningful, collaborative and respectful way with the Aboriginal communities we serve and the lands we operate on
- continuing cultural awareness training for our staff
- continued support to Indigenous businesses through the procurement of services
- engaging with Aboriginal communities on projects that will protect Aboriginal heritage and culture
- continuing support of National Reconciliation and National Aborigines and Islanders Day Observance Committee weeks
- continuing employment, scholarships and work experience opportunities for Aboriginal and Torres Strait Islander people. In 2016-17, we employed 28 Aboriginal and Torres Strait Islander staff which included seven new employees.

EXECUTIVE EMPLOYMENT

EXECUTIVE CLASSIFICATION	NUMBER OF EXECUTIVES
EX A (SW10)	27
EX B (SW11)	1
EX C (SW12)	5
EX D (SW13)	2
EX E (SW14)	1

***SA Water Executives are classified in the SA Water Single Classification Structure (denoted SW in brackets beside previous class).*

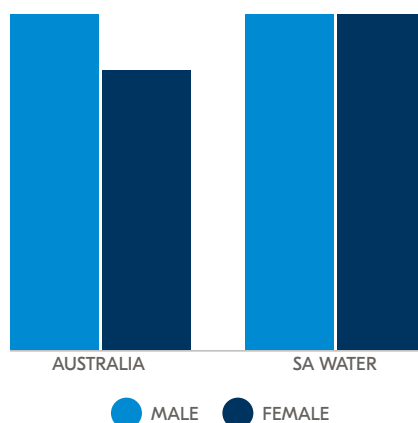
For further information, the [Office for the Public Sector](#) has a [data dashboard](#) for further information on the breakdown of executive gender, salary and tenure by agency.



LEADING THE WAY WITH PAY EQUITY

The gender pay gap measures the difference between women’s and men’s average weekly full-time equivalent earnings and is expressed as a percentage of men’s earning.

AUSTRALIA’S GENDER PAY GAP FOR 2016 HAS BEEN CALCULATED AT 15.3% AT SA WATER, OUR PAY GAP FOR THE SAME PERIOD WAS 0%



Australia’s gender pay gap for 2016 has been calculated at 15.3 per cent, a gap of around \$250 a week, or two additional months of work. Across the South Australian Public Sector, the gap between men and women’s salaries at June 2016 was \$13 473 per annum in favour of men: a gap of 15 per cent.

At SA Water, our pay gap for the same period was zero per cent, down from two per cent in 2015 and one per cent in 2014.

Our achievement reflects the collective effort across the business to embrace diversity as well as our genuine belief that men and women benefit from an inclusive workplace, as do our customers.

INCLUSION AND DIVERSITY ACTION PLAN

Our Inclusion and Diversity Action Plan, aligned with the South Australian Government, Disability Access and Inclusion Plans outlines that everyone is entitled to their rights and freedom without distinction of any kind and irrespective of any past, present or future disability.

Our actions are guided by six key outcomes:

1. inclusive and accessible communities
2. economic security and employment
3. rights, protection, justice and legislation
4. personal and community support
5. learning and skills
6. health and wellbeing.

We prohibit discrimination on the basis of disability with regard to all matters concerning all forms of employment, including conditions of recruitment, hiring and employment, continuance of employment, career advancement and safe and healthy working conditions.

In addition, we actively support our people with disabilities with regard to access and physical environment as well as have a comprehensive health and wellbeing program focussed on healthy living and supporting inclusion.

Through our graduate program we actively encourage women to apply and work in non-traditional roles as well as increasing the participation of people from Aboriginal and Torres Strait Islander backgrounds into the workforce.

To address attitudinal and environmental barriers that hinder full and effective participation, we are actively raising awareness and fostering respect for the rights and dignity of people with disabilities. We do this to combat stereotypes prejudices and harmful practices relating to persons with disabilities. We also challenge unconscious bias, and promote awareness of the capabilities and contributions of persons with disabilities.





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 (ESCOSA) is the independent economic regulator for the water industry. It sets service standards and revenue levels for water and sewerage services provided by SA Water.

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

DEWNR 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

Under the *South Australian Water Corporation Act 1994* the Board of directors governs SA Water on behalf of the State Government and reports to the Minister for Water and the River Murray.

The Board sets the strategic direction for SA Water and monitors the Corporation's performance, securing continual improvement and protecting the long-term viability of SA Water and government financial interests.

The following [Board members](#) were appointed by the Governor of South Australia:

- Lewis Owens (chair to 30 June 2017)
- Sybella Blencowe
- Sue Filby
- Ian Stirling
- Hon. Carolyn Pickles
- Hon. Karlene Maywald
- Roch Cheroux.

Operational management of SA Water is delegated by the Board through the Chief Executive to the Senior Leadership Team (SLT).

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 expenditure up to \$4 million on any one project.

Pursuant to section 12 of the *Public Corporations Act 1993*, a charter was prepared by the Minister and the Treasurer, in consultation with the Board. It guides the Board in seeking to balance community service with prudent commercial principles. The annual review of the charter was conducted with no changes made.

DIRECTORS' INTERESTS AND BENEFITS

For 2016-17, 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 SA Water Board established a Committee structure to assist the Board in meeting its responsibilities. Each committee has a charter that guides its functions and duties and is reviewed annually.

Policy and Strategy Committee – assists the Board's oversight of the long-term strategy of the Corporation to ensure that 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 the planning, remuneration and culture of the Corporation's workforce, taking into account the corporation's strategic plan, government policy, relevant Board policies, business needs and regulatory requirements.

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

Summary of committee membership

NAME	POLICY AND STRATEGY	PEOPLE AND CULTURE	GOVERNANCE, FINANCE AND RISK
Lew Owens	●	●	
Sybella Blencowe			●
Sue Filby	●		
Ian Stirling	●		●
Hon. Carolyn Pickles		●	●
Hon. Karlene Maywald	●	●	
Roch Cheroux	●*	●*	●*

● Chair ● Attended *ex officio

BOARD ATTENDANCE

During 2016-17 directors attended meetings of the Board and the following Committees:

- Policy and Strategy Committee
- People and Culture Committee
- Governance, Finance and Risk Committee.

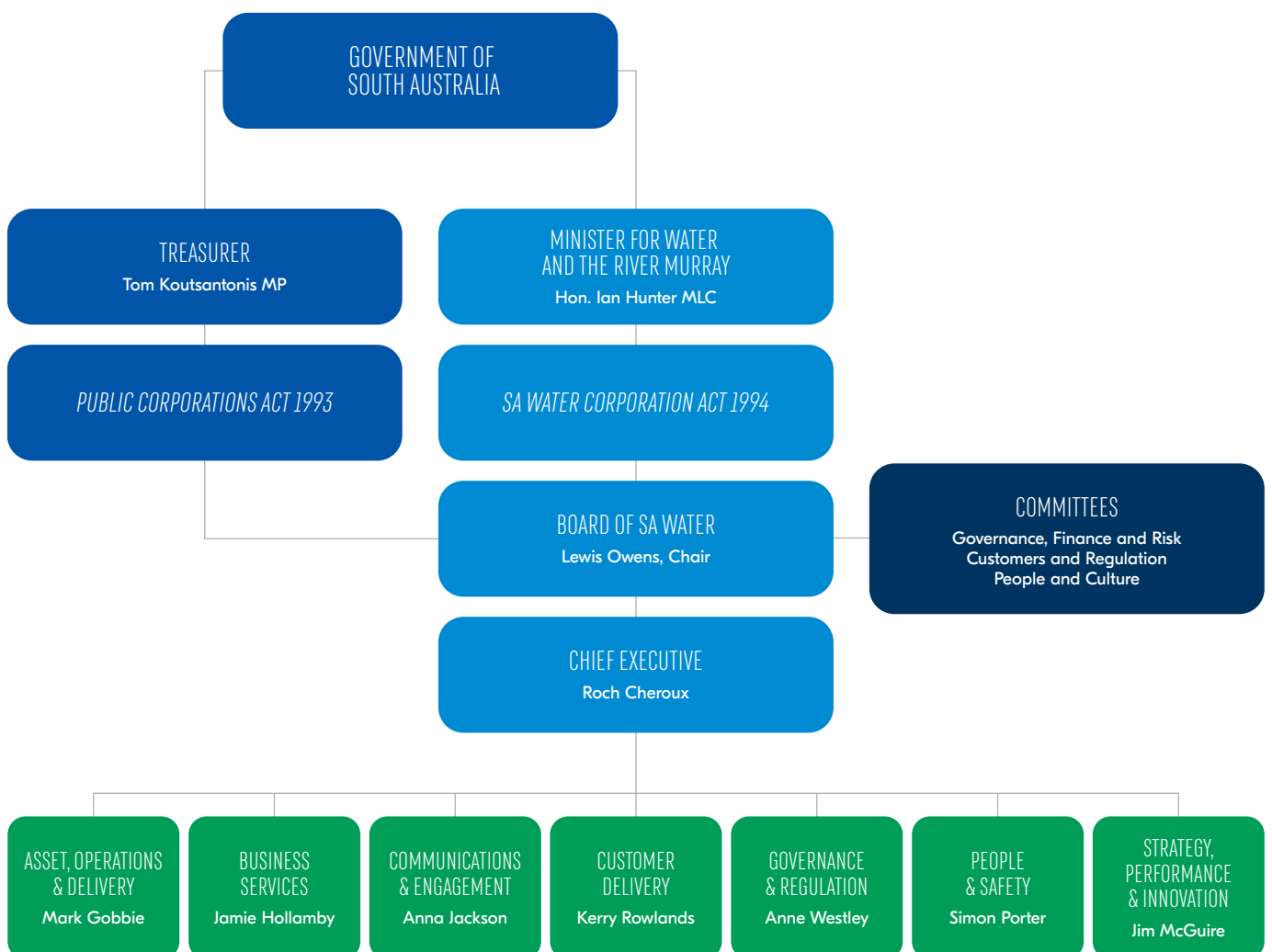
The number of meetings attended by each of the directors is shown in the following table.

	BOARD		SPECIAL BOARD		PEOPLE AND CULTURE		POLICY AND STRATEGY		GOVERNANCE, FINANCE AND RISK	
	A	B	A	B	A	B	A	B	A	A
Sybella Blencowe	11	10	2	2					5	4
Carolyn Pickles	11	10	2	2	4	4			5	4
Sue Filby	11	10	2	2			5	5		
Lew Owens	11	10	2	2	4	4	5	5		
Karlene Maywald	11	9	2	1	4	4	5	5		
Ian Stirling	11	11	2	2			5	5	5	5
Roch Cheroux	11	11	2	2	4	4	5	5	5	5

A number eligible to attend B number attended

ORGANISATIONAL STRUCTURE

As at 30 June 2017







FINANCIAL PERFORMANCE

FINANCIAL PERFORMANCE SUMMARY

The following is a brief summary of the overall financial position of the agency. The information is unaudited. Full audited financial statements for 2016-17 are attached to this report.

The preliminary year end Profit Before Tax result is \$188.5m which is \$5.4m higher than original budget. This result can be attributed to a number of factors including:

- lower estimated water sales of (13.8 GLs)/(\$51.8 million) offset by upside in prior year unbilled revenue of \$5.3 million
- other revenue considerations of \$24.1 million (includes recognition of funding for the Department of Planning, Transport and Infrastructure (DPTI) projects; water and wastewater rates; and gain on sale of water licenses and surplus renewable energy certificates)
- operating expenditure is \$21.1 million under budget, with favourable variances against contractors, electricity and treatment plant contracts
- depreciation and amortisation is also \$6.7 million lower due to timing of capital delivery and lower asset re-valuations.

CONSULTANTS

The following is a summary of external consultants that have been engaged by SA Water, the nature of work undertaken and the total cost of the work undertaken.

CONSULTANT	AMOUNT	CLASSIFICATION	DESCRIPTION/PURPOSE
MERCER	2 249	Less than \$10 000	Workforce Planning and Training Advice
MWH AUSTRALIA PTY LTD	5 000	Less than \$10 000	Update of the Benefits Realisation Report related to North South Interconnection System Project
CONSULTANCIES ABOVE \$10,000 EACH			
CONSULTANT	AMOUNT	CLASSIFICATION	DESCRIPTION/PURPOSE
YELLOWSCOPE PTY LTD	18 720	Between \$10 000 and \$50 000	Preparation of the Electronic Lodgement Implementation Plan
KPMG	24 160	Between \$10 000 and \$50 000	Workshop Services Information Services (IS) Delivery Model
YELLOWSCOPE PTY LTD	24 449	Between \$10 000 and \$50 000	Specialist Business Analytics
MARCHMENT HILL CONSULTING	24 834	Between \$10 000 and \$50 000	Civil Maintenance Benchmarking
YELLOWSCOPE PTY LTD	25 977	Between \$10 000 and \$50 000	Asset Information Change Management Planning and Implementation Support
KPMG	36 172	Between \$10 000 and \$50 000	EA Strategy Planning Workshop facilitation
SYMBIOSIS AUSTRALIA PTY LTD	43 978	Between \$10 000 and \$50 000	Asset Management headwork major pipeline structures Support
MERCER	48 391	Between \$10 000 and \$50 000	General remuneration advice-under SO7740
YELLOWSCOPE PTY LTD	275 535	Greater than \$50 000	Management of Asset (MoA) Project Management
Grand Total	529 465		

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 treasury.sa.gov.au for total value of consultancy contracts across the SA Public Sector.





SUPPLEMENTARY REPORTING ITEMS

FRAUD

There have been no instances of fraud detected over the last financial year.

STRATEGIES 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 staff of the need to report matters of concern and to act in accordance with SA Water's 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 did not receive any whistleblower related allegations during 2016-17.

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 operation efficiency.

In 2016-17, we registered 2.46 complaints per 1 000 customers. This figure has increased when compared to the previous year of 2.25 complaints per 1 000 customers recorded in 2015-16. Our result is below the national benchmark (4.1), based on 2015-16 National Performance Reporting data for major utilities. We will continue to have a strong focus on reducing this over the coming year.

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

In 2016-17, 264* complaints about SA Water were made to the Energy and Water Ombudsman of South Australia in a range of areas. High water use continued to top the list of concerns escalated as outlined below:

- overall Water Quality complaints increased due to two water quality events. Water Quality issues with the Happy Valley reservoir in November 2016 and the water quality team managing algal blooms in both Happy Valley and Myponga in January 2017
- although complaints to SA Water have increased overall, when compared to last year, Energy and Water Ombudsman of SA (EWOSA) complaints have reduced significantly from 420 complaints to 264* which is an approximate decrease of 37 per cent.

The decrease in complaints brought to the Energy and Water Ombudsman of SA supports our focus to ensure customer's concerns are heard and acted upon when they first contact us.

Our front line teams such as the Customer Care Centre are encouraged to escalate interactions with customers where they believe the concern has not been resolved. In turn, if a Care Centre manager is not able to resolve the concerns, they will proactively refer the customer to the Customer Advocacy and Resolution team. This approach has allowed us to address customer concerns in house rather than customers feeling like they need to voice their concerns externally.

*The number of Energy and Water Ombudsman of South Australia (EWOSA) complaints referred to SA Water may differ between SA Water and EWOSA due to variances in reporting practices.



OPERATIONS FOUR YEAR COMPARISON DATA 2013-17

	2013-14	2014-15	2015-16	2016-17
STATEWIDE				
POPULATION SERVED				
Estimated population supplied water supply statewide	1 605 000	1 664 000	1 684 000	1 692 000
Estimated population supplied used water services statewide	1 281 000	1 309 000	1 324 000	1 330 000
Accounts billed	745 216	751 605	759 323	766 723
WATER CONSUMPTION				
Total volume delivered (ML)	213 926	218 979	227 830	202 789
Highest daily consumption recorded in 24 hours to 8am (ML)	825	715	823.4	667
Average residential consumption per household (kL)	178	179	199.1	165.5
WATER SOURCES				
Total water (ML)	213 926	218 979	227 830	202 789
% provided by River Murray	36.2	50.2	83.1	33.3
% provided by surface water	29.7	34.0	8.0	58.9
% provided by ground water	5.6	5.4	5.5	5.8
% provided by sea water	28.5	10.4	3.4	2.1
MAJOR PIPELINE LENGTHS (KM)				
Murray Bridge to Onkaparinga	50	50	50	50
Morgan/Whyalla no 1 via Port Augusta	358	358	358	358
Morgan/Whyalla no 2 undersea from Baroota	283	283	286	286
Mannum to Adelaide	87	87	87	87
Swan Reach/Paskeville	189	189	189	189
Tailem Bend/Keith	132	132	132	132
Lincoln Gap/Kimba	970	970	970	970
Total length of water mains across South Australia	26 773	26 836	26 899	27 024
Total length of sewers across South Australia	8 807	8 853	8 901	8 940
PERFORMANCE				
Percentage of telephone calls within 30 seconds	88%	85%	85%	85%
Percentage of written complaints responded to within target timeframes	91%	98%	95%	99%
Percentage of water connections constructed within target timeframes	95%	91%	93%	97%
Percentage of sewer connections constructed within target timeframes	95%	86%	90%	98%
Percentage of trade waste applications processed within 10 business days	99%	99%	100%	99%
Number of planned water service interruptions	298	297	286	447
Number of unplanned water service interruptions	3 004	3 380	3 695	3 220
Number of customers with three or more unplanned water supply interruptions per year	1 782	2 211	3 044	3 218

	2013-14	2014-15	2015-16	2016-17
Percentage of water quality complaints responded to in target timeframes	96%	98%	98%	98%
Percentage of water network breaks and leaks attended within target timeframes	98%	99%	99%	99%
Percentage of water network service restorations performed within target timeframes	99%	98%	97%	99%
Number of planned sewerage service interruptions	1	1	1	0
Number of unplanned sewerage service interruptions	3 953	4 079	2 984	3 333
Percentage of sewerage network service restorations performed within target timeframes	96%	95%	94%	96%
Percentage of sewerage network overflows attended within target timeframes	98%	99%	99%	99%
Percentage of sewerage network overflow clean-ups performed within target timeframes	98%	98%	97%	97%

METROPOLITAN ADELAIDE

WATER SUPPLY

Number of water treatment plants	6	6	6	6
Volume delivered (ML)	141 789	145 358	152 033	135 854
Average daily volume delivered (ML)	388	398	395	372
Average daily per capita consumption including commercial industrial and residential (L)	331	337	331	309.5
Average volume water delivered for past five years (ML)	138 495	139 616	144 223	139 616
Estimated population served	1 173 000	1 180 000	1 194 000	1 202 000
Length of mains (km)	9 190	9 223	9 266	9 291

WATER SUPPLY AND QUALITY PERFORMANCE

Number of planned water service interruptions	277	259	256	390
Number of unplanned water service interruptions	1 881	2 038	2 385	2 126
Number of customers with three or more unplanned water supply interruptions per year	1 120	1 569	2 363	1 802
Percentage of water network breaks and leaks attended within target timeframes	98%	99%	99%	99%
Percentage of water network service restorations performed within target timeframes	99%	98%	97%	98%
Percentage of water quality complaints responded to in target timeframes	95%	97%	98%	97%
% of samples free from <i>E. coli</i>	99.98	100	99.97	99.91
Total expenses per customer (\$)	413	358	369	341

USED WATER

Number of wastewater treatment plants	6	5	6	6
Estimated population served	1 113 000	1 120 000	1 133 000	1 139 000
Length of sewers (km)	7 337	7 375	7 419	7 437
Length of recycled water supply main (km)	188	218	194	223

SEWERAGE SERVICES PERFORMANCE

Number of planned sewerage service interruptions	1	1	1	0
Number of unplanned sewerage service interruptions	3 838	3 982	2 936	3 257



	2013-14	2014-15	2015-16	2016-17
Percentage of sewerage network service restorations performed within target timeframes	95%	94%	94%	95%
Percentage of sewerage network overflows attended within target timeframes	98%	99%	99%	99%
Percentage of sewerage network overflow clean-ups performed within target timeframes	98%	98%	97%	97%
Percentage reclaimed water reused	28.4	33.7	33.4	21.4
Total expenses per customer (\$)	187	195	207	203

NON-METROPOLITAN

WATER SUPPLY

Number of water treatment plants	35	37	37	37
Volume delivered (ML)	72 137	73 621	75 797	66 935
Average volume water delivered for past five years (ML)	73 183	72 622	74 231	72 614
Estimated population served	432 000	484 000	490 000	490 000
Length of mains (km)	17 582	17 613	17 633	17 733

WATER SUPPLY AND QUALITY PERFORMANCE

Number of planned water service interruptions	21	38	30	57
Number of unplanned water service interruptions	1 123	1 342	1 310	1 094
Number of customers with three or more unplanned water supply interruptions per year	662	642	681	1 416
Percentage of water quality complaints responded to in target timeframes	100%	100%	100%	100%
Percentage of water network breaks and leaks attended within target timeframes	99%	99%	100%	99%
Percentage of water network service restorations performed within target timeframes	99%	98%	99%	99%
% of samples free from <i>E. coli</i>	100	100	99.95	99.95
Total expenses per customer (\$)	686	663	723	654

USED WATER

Number of wastewater treatment plants	19	19	19	20
Estimated population served	168 000	189 000	191 000	191 000
Length of sewers (km)	1 470	1 478	1 482	1 503
Length of recycled water supply main (km)*	24	24	24	25

SEWERAGE SERVICES PERFORMANCE

Number of planned sewerage service interruptions	0	0	0	0
Number of unplanned sewerage service interruptions	115	97	48	76
Percentage of sewerage network service restorations performed within target timeframes	100%	100%	100%	100%
Percentage of sewerage network overflows attended within target timeframes	100%	99%	100%	100%
Percentage of sewerage network overflow clean-ups performed within target timeframes	99%	100%	100%	99%
Percentage reclaimed water reused	21.8	22.1	25.8	19.7
Total expenses per customer (\$)	369	400	415	382





APPENDICES

**South Australian Water Corporation
Annual Financial Statements
for the year ended 30 June 2017**

INDEPENDENT AUDITOR'S REPORT



Government of South Australia
Auditor-General's Department

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www.audit.sa.gov.au

To the Chair South Australian Water Corporation

As required by section 31(1)(b) of the *Public Finance and Audit Act 1987* and section 32(4) of the *Public Corporations Act*, I have audited the financial report of the South Australian Water Corporation for the financial year ended 30 June 2017.

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 2017, its financial performance and its cash flows for the year then ended in accordance with the Treasurer's Instructions promulgated 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 2017
- a Statement of Financial Position as at 30 June 2017
- a Statement of Changes in Equity for the year ended 30 June 2017
- a Statement of Cash Flows for the year ended 30 June 2017
- notes, comprising a summary of significant accounting policies and other explanatory information
- a Certificate from the Chair, 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 promulgated under the provisions of the *Public Finance and Audit Act 1987* and the 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 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:

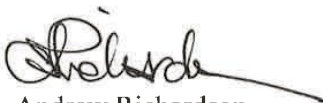
- identify and assess the risks of material misstatement of the financial report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for my opinion. The risk of not detecting a material 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 regarding, 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

19 September 2017

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



.....
Carolyn Pickles
Chair

Date 13/09/2017

South Australian Water Corporation
Statement of comprehensive income
For the year ended 30 June 2017

	Notes	2017 \$'000	2016 \$'000
Income			
Revenue from ordinary activities	5	1,361,773	1,505,107
Other income	6	7,758	5,155
Total income		<u>1,369,531</u>	<u>1,510,262</u>
Expenses			
Depreciation and amortisation expense	7	(327,013)	(318,395)
Borrowing costs	7	(336,634)	(336,278)
Electricity expense		(43,125)	(48,975)
Services and supplies		(161,587)	(200,264)
Operational and service contracts		(184,982)	(182,990)
Employee benefits expense		(127,664)	(121,952)
Total expenses		<u>(1,181,005)</u>	<u>(1,208,854)</u>
Profit before income tax equivalents		188,526	301,408
Income tax expense	8	(54,171)	(88,303)
Profit after income tax equivalents		<u>134,355</u>	<u>213,105</u>
Other comprehensive income			
<i>Items that will not be reclassified to net result</i>			
Gain on revaluation of infrastructure, plant and equipment assets	30(a)	89,871	111,582
Revaluation of available-for-sale financial assets		4,609	2,726
Income tax relating to components of other comprehensive income	8(c)	(26,461)	(32,656)
Other comprehensive income for the year, net of tax		<u>68,019</u>	<u>81,652</u>
Total comprehensive result		<u>202,374</u>	<u>294,757</u>
Total comprehensive result for the year is attributable to:			
The SA Government as owner		<u>202,374</u>	<u>294,757</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 2017

	Notes	2017 \$'000	2016 \$'000
ASSETS			
Current assets			
Cash and cash equivalents	27	2,450	3,248
Receivables	9	218,558	212,614
Inventories	10	8,412	6,946
Other financial assets	11	874	980
Tax receivables	19	5,659	-
Other current assets	12	12,611	12,181
Total current assets		248,564	235,969
Non-current assets			
Available-for-sale financial assets	13	35,170	30,561
Deferred tax assets	14	45,460	45,967
Intangible assets	15	179,618	173,724
Infrastructure, plant and equipment	16	13,685,909	13,604,021
Total non-current assets		13,946,157	13,854,273
Total assets		14,194,721	14,090,242
LIABILITIES			
Current liabilities			
Payables	17	203,769	189,619
Financial liabilities/borrowings	18	39,235	25,778
Tax liabilities	19	-	9,783
Provisions	20	16,737	16,843
Other current liabilities	21	33,277	30,204
Total current liabilities		293,018	272,227
Non-current liabilities			
Payables	22	2,296	2,512
Financial liabilities/borrowings	23	6,406,165	6,333,126
Deferred tax liabilities	24	1,673,790	1,661,716
Provisions	25	29,790	30,957
Other non-current liabilities	26	370,871	380,250
Total non-current liabilities		8,482,912	8,408,561
Total liabilities		8,775,930	8,680,788
Net assets		5,418,791	5,409,454
EQUITY			
Contributed equity		173,610	173,610
Asset revaluation surplus	30(a)	4,989,256	4,923,535
Retained earnings	30(b)	255,925	312,309
Total equity		5,418,791	5,409,454

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 2017

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	30	89,871	-	89,871
Revaluation of available-for-sale financial assets	30	4,609	-	4,609
Transfer to retained profits on disposal	30	(2,298)	-	(2,298)
Transfer from infrastructure, plant and equipment revaluation surplus	30	-	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	34	-	(193,037)	(193,037)
Balance at 30 June 2017	173,610	4,989,256	255,925	5,418,791

Notes	Asset			Total \$'000
	Contributed equity \$'000	revaluation surplus \$'000	Retained earnings \$'000	
Balance at 1 July 2015	173,610	4,844,100	301,905	5,319,615
Profit for the year	-	-	213,105	213,105
Gain on revaluation on infrastructure, plant and equipment assets	30	111,582	-	111,582
Revaluation of available-for-sale financial assets	30	2,726	-	2,726
Transfer to retained profits on disposal	30	(2,217)	-	(2,217)
Transfer from infrastructure, plant and equipment revaluation surplus	30	-	2,217	2,217
Income tax relating to components of other comprehensive income	8(c)	(32,656)	-	(32,656)
Total comprehensive result for the period	-	79,435	215,322	294,757
Transactions with the SA Government in their capacity as owners:				
Dividends provided for or paid	34	-	(204,918)	(204,918)
Balance at 30 June 2016	173,610	4,923,535	312,309	5,409,454

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 2017

	Notes	2017 \$'000	2016 \$'000
Cash flows from operating activities			
Receipts from customers		1,239,778	1,372,456
Payments to suppliers and employees		(586,674)	(563,715)
Interest received		88	380
Receipts from community service obligations		130,780	129,293
Receipts from contributions		8,368	9,642
Receipts from government grants		45	99
Borrowing costs paid		(313,500)	(336,727)
Income tax equivalents paid		(83,493)	(107,273)
Net cash inflow from operating activities	28	<u>395,392</u>	<u>504,155</u>
Cash flows from investing activities			
Payments for construction and purchase of infrastructure, plant and equipment		(280,926)	(280,098)
Payments for intangible assets		(19,263)	(20,847)
Proceeds from sale of intangible assets		1,546	4,426
Proceeds from sale of infrastructure, plant and equipment		675	972
Proceeds from sale of renewable energy certificates		8,319	754
Net cash (outflow) from investing activities		<u>(289,649)</u>	<u>(294,793)</u>
Cash flows from financing activities			
Proceeds from borrowings		1,011,900	1,163,523
Repayment of borrowings		(916,500)	(1,157,900)
Dividends paid	34	(193,037)	(204,918)
Repayments of finance lease liability		(8,904)	(7,960)
Net cash (outflow) from financing activities		<u>(106,541)</u>	<u>(207,255)</u>
Net (decrease)/increase in cash and cash equivalents		(798)	2,107
Cash and cash equivalents at the beginning of the financial year		3,248	1,141
Cash and cash equivalents at end of period	27	<u>2,450</u>	<u>3,248</u>

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 2017 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 2017
(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) Jointly controlled operations

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. For disclosure of the Corporation's interest in the joint controlled operation refer to note 32.

(c) Revenue recognition

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.

Unbilled revenue

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, after negotiations with SA Water, 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

1 Summary of significant accounting policies (continued)

(c) Revenue recognition (continued)

Contributed assets (continued)

(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 Corporation's estimated cost of construction; or

b) the Corporation constructs the infrastructure at the developer's request.

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.

Disposal of non-current assets

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.

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.

(d) Expenses

Expenses are recognised to the extent that it is probable that the flow of economic benefits from the Corporation will occur and can be reliably measured.

Expenses have been aggregated according to their nature and have not been offset unless required or permitted by a specific accounting standard, or where offsetting reflects the substance of the transaction or other event.

The following are specific recognition criteria:

Employee benefits expenses

Employee benefit expenses are recognised as incurred and include all costs related to employment including wages and salaries, non-monetary benefits and leave entitlements.

South Australian Water Corporation
Notes to the consolidated financial statements
30 June 2017
(continued)

1 Summary of significant accounting policies (continued)

(d) 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.

Supplies and services

Supplies and services generally represent cost of goods sold and the day to day running costs, including maintenance costs, incurred in the normal operations of the Corporation. These items are recognised as an expense in the reporting period in which they are incurred. The Corporation undertakes major cyclical maintenance on its infrastructure assets. Costs associated with this are recorded as an expense unless they add to the service potential of the existing asset.

Operational and service contracts

Operational and service contracts include the Adelaide Services Alliance Agreement (Allwater), Adelaide Desalination Plant (ADP) operations and maintenance contract, contracts relating to information and communications technology, treatment plants and miscellaneous operational and service contracts. These items are recognised as an expense in the reporting period in which they are incurred.

Depreciation

Refer to note 1(e).

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) II 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.

(e) Non-current assets

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.

1 Summary of significant accounting policies (continued)

(e) Non-current assets (continued)

Infrastructure, plant and equipment (continued)

Valuations

To comply with the *Accounting Policy Framework III Asset Accounting Framework*, AASB 13 and AASB 116, 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 Aquentia 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 Aquentia Consulting as at 1 July 2016. 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 bores and wells, water pumping stations, water tanks, and leased water treatment plants by Aquentia Consulting as at 1 July 2016.

The previous independent valuations were:

- 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.
- Water dosing stations, earth storages and reservoirs were independently valued as at 1 July 2012.

South Australian Water Corporation
Notes to the consolidated financial statements
30 June 2017
(continued)

1 Summary of significant accounting policies (continued)

(e) Non-current assets (continued)

Infrastructure, plant and equipment (continued)

Valuations (continued)

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 Aqenta as at 1 July 2015.

1 Summary of significant accounting policies (continued)

(e) Non-current assets (continued)

Infrastructure, plant and equipment (continued)

Valuations (continued)

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.

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:

<u>Class of assets</u>	<u>Useful life (years)</u>
-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.

Financial assets (available-for-sale)

The Corporation was a participant to the funding arrangements for the Virginia Pipeline Scheme (VPS). SA Water's involvement in this scheme will result 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 non voting class B shares has 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 has been determined using the projected written down current cost of the pipeline assets in 2018 discounted to net present value. The VPS is 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.

South Australian Water Corporation
Notes to the consolidated financial statements
30 June 2017
(continued)

1 Summary of significant accounting policies (continued)

(e) Non-current assets (continued)

Infrastructure, plant and equipment (continued)

Intangible assets

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.

Other Water rights - permanent

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.

1 Summary of significant accounting policies (continued)

(e) Non-current assets (continued)

Infrastructure, plant and equipment (continued)

Intangible assets (continued)

Other Water rights - permanent (continued)

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.

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. There is no further change in 2016/17 to these preserved allocations.

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 2017
(continued)

1 Summary of significant accounting policies (continued)

(f) 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 2017. There were no indications of impairment.

(g) Leases

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.

Lease Incentives

All incentives for the agreement of a new or renewed operating lease are recognised as an integral part of the net consideration agreed for the use of the leased asset. Incentives received to enter into operating leases are recognised as a liability. The aggregate benefits of lease incentives received by the Corporation in respect of operating leases have been recorded as a reduction of rental expense over the lease term, on a straight line basis.

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. Finance leases are capitalised and depreciated over the useful life of the asset in accordance with *AASB 117 Leases*.

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.

(h) 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.

1 Summary of significant accounting policies (continued)

(h) Taxes (continued)

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:

- 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.

(i) Cash and cash equivalents

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.

South Australian Water Corporation
Notes to the consolidated financial statements
30 June 2017
(continued)

1 Summary of significant accounting policies (continued)

(j) Receivables

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.

(k) Inventories

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.

(l) Employee benefits

These benefits accrue for employees as a result of services provided up to the reporting date that remain unpaid. Long term employee benefits are measured at present value and short term employee benefits are measured at nominal amounts.

Wages and salaries, annual leave and sick leave

The liability for salary and wages is measured as the amount unpaid at remuneration rates applicable at balance date.

The annual leave liability is expected to be payable within twelve months and is measured at the undiscounted amount expected to be paid.

No provision has been made for sick leave as all sick leave is non vesting and the average sick leave taken in future years by employees is estimated to be less than the annual entitlement for sick leave.

Long service leave

Liabilities arising in respect of long service leave expected to be settled within twelve months of balance date are measured at their nominal rates. All other long service leave entitlements 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 2017 was valued by KPMG Actuarial Pty Ltd.

Superannuation

Refer to note 1 (d)

(m) 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 2017 provided by KPMG Actuarial Pty Ltd.

1 Summary of significant accounting policies (continued)

(n) Insurance

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.

(o) Payables

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.

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.

(p) Provisions

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.

When the Corporation expects some or all of a provision to be reimbursed, the reimbursement is recognised as a separate asset but only when the reimbursement is virtually certain. The expense relating to any provision is presented in the Statement of Comprehensive Income net of any reimbursement.

Provisions are measured at the present value of management's best estimate of the expenditure required to settle the present obligation at the reporting date. If the effect of the time value of money is material, provisions are discounted for the time value of money and the risks specific to the liability.

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.

Asset disposal and site rehabilitation

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.

(q) Borrowings

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 2017
(continued)

1 Summary of significant accounting policies (continued)

(q) 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 Liability Management Service Agreement and within requirements outlined in SA Water's Treasury Risk Management Policy.

Forward starting loans

SA Water enters into forward starting loans (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 *AASB 139 Financial Instrument Recognition and Measurement*, and disclosed as unrecognised fixed rate loan commitments (refer note 2(c)).

(r) Derivatives

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).

Foreign exchange derivatives

Foreign exchange risk represents the risk resulting from contractual obligations to buy or sell goods and or services in a currency other than Australian dollars or where the price is quoted in Australian dollars, and the quoted price is dependent upon a foreign currency price component. The foreign currency value of the goods or services to be bought or sold, or the value of the foreign currency price component is deemed to be the Corporation's exposure to price risk.

Foreign currency derivatives are used on an as needs basis to ensure any identified foreign currency exposures are appropriately managed in line with SA Water's Treasury Risk Management Policy and Treasurer's Instruction 23 *Management of Foreign Currency Exposures*. Permitted foreign currency derivatives as outlined in SA Water's Treasury Risk Management Policy include spot and forward foreign currency contracts and currency options to maximum maturity of 3 years. In all instances, SA Water's foreign exchange hedging requirements are arranged through SAFA.

As at 30 June 2017, SA Water had no outstanding foreign exchange derivatives.

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.

1 Summary of significant accounting policies (continued)

(r) Derivatives (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 *AASB139 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.

South Australian Water Corporation
Notes to the consolidated financial statements
30 June 2017
(continued)

1 Summary of significant accounting policies (continued)

(s) Administered items

The following administered items are not recognised in the Corporation's Statement of Comprehensive Income, Statement of Financial Position and Statement of Cash Flows, but are separately disclosed as administered items in note 38.

River Murray levy

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.

(t) New accounting standards and interpretations

The Corporation did not voluntarily change any of its accounting policies during 2016-2017.

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 2017.

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. Operating lease payments will no longer be expensed in the Statement of Comprehensive Income, rather they will be apportioned between a reduction in the recognised lease liability and the finance charge in the lease. The finance charge will be recognised as an expense.

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 changes in revenue recognition requirements may result in changes to the timing and amount of revenue recognised from sales of SA Water's good and services.

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.

SA Water has not yet quantified the impact of adopting the above new and amended standards and the resulting impact on the Statement of Comprehensive Income, the Statement of Financial Position and the Notes to the financial statements.

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, use of alternative risk mitigation strategies and the mix of fixed and variable interest rates.

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 has been set at 2.1-4.9 years based on the advice from the Corporation's debt advisor and manager - the South Australian Financing Authority (SAFA).

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 2017 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		Profit \$'000	Equity \$'000
		-0.5%	+0.5%		
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>

	Carrying amount \$'000	Interest rate risk		Profit \$'000	Equity \$'000
		-0.5%	+0.5%		
30 June 2016					
Financial assets					
Cash and cash equivalents	3,248	(11)	(11)	11	11
Financial liabilities					
Short term borrowings	(16,874)	59	59	(59)	(59)
Total increase/(decrease)		<u>48</u>	<u>48</u>	<u>(48)</u>	<u>(48)</u>

South Australian Water Corporation
Notes to the consolidated financial statements
30 June 2017
(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 and an Energy Risk Management Committee 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 to manage its exposure to electricity spot prices on energy purchases.

The following sensitivity analysis is based on electricity derivatives in existence at balance date. The movements in post-tax profit and equity for the year are due to higher/lower electricity price curves and settlement residues assuming all other variables are held constant.

At 30 June 2017 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.

	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)

	Carrying amount \$'000	Electricity Price Risk			
		-10%		+10%	
		Profit \$'000	Equity \$'000	Profit \$'000	Equity \$'000
30 June 2016					
Financial assets					
Derivative financial instruments (electricity)	980	20	20	(20)	(20)
Total increase/(decrease)		20	20	(20)	(20)

(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.

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

2 Financial risk management (continued)

(b) Credit risk (continued)

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) is excluded from the relevant maturity grouping. The future cash flows relating to forward starting loans are separately disclosed in the table below as unrecognised fixed rate loan commitments.

At 30 June 2017	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*	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

South Australian Water Corporation
Notes to the consolidated financial statements
30 June 2017
(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 2016					
Non-derivatives					
Non-interest bearing liabilities*	114,458	-	-	-	114,458
Fixed rate borrowings	427,563	1,132,551	3,716,275	2,613,856	7,890,245
Floating rate borrowings	16,802	-	-	-	16,802
Finance lease liabilities	22,572	22,572	67,716	37,609	150,469
Total non-derivatives	<u>581,395</u>	<u>1,155,123</u>	<u>3,783,991</u>	<u>2,651,465</u>	<u>8,171,974</u>

* 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 1(g).

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

	2017		2016	
	Carrying amount \$'000	Fair value \$'000	Carrying amount \$'000	Fair value \$'000
Long term borrowings	6,346,000	6,552,020	6,263,000	6,664,742

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

(ii) Fair value of financial assets

The Corporation has invested in unlisted class B shares as part of the Build Own Operate and Transfer (BOOT) arrangements for the Virginia Pipeline Scheme. These shares have been measured at fair value, which includes some assumptions that are not supportable by observable market prices or rates. The fair value has been estimated using the written down current cost of the pipeline assets at the transfer date of 2018, discounted to their present value. In determining fair value a discount factor of 4.63% (30 June 2016: 5.06%) has been used which has been determined from SA Water's pre tax real weighted average cost of capital. If the discount rate was 1% higher, while all other variables were constant, the carrying amount of the shares would decrease by \$0.2m (30 June 2016: \$0.7m). If the discount rate was 1% lower, while all other variables were held constant, the carrying amount of the shares would increase by \$0.2m (30 June 2016: \$0.7m).

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

	2017		2016	
	Carrying amount \$'000	Fair value \$'000	Carrying amount \$'000	Fair value \$'000
Unlisted shares	35,170	35,170	30,561	30,561

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

South Australian Water Corporation
Notes to the consolidated financial statements
30 June 2017
(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 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 2017.

(i) Recognised fair value measurements

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

3 Fair value measurements (continued)

(a) Fair value measurements (continued)

(i) Recognised fair value measurements (continued)

30 June 2016	2016 \$'000	Level 1 \$'000	Level 2 \$'000	Level 3 \$'000
Recurring fair value measurements				
Financial assets				
Electricity derivatives	980	980	-	-
Unlisted shares	30,561	-	-	30,561
Total financial assets	31,541	980	-	30,561
Non-financial assets				
Buildings	20,883	-	-	20,883
Land	359,094	-	359,094	-
Water infrastructure	8,704,568	-	-	8,704,568
Sewer infrastructure	3,985,921	-	-	3,985,921
Plant and equipment and other	110,566	-	-	110,566
Total non-financial assets	13,181,032	-	359,094	12,821,938
Total recurring financial and non-financial assets	13,212,573	980	359,094	12,852,499

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 1(e).

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 2017
(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 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)
	(2,819)	(204,065)	(93,730)	(19,992)	-	(320,606)
Total gain (losses) for the period in other comprehensive income:						
Revaluation increment/ (decrement)	327	23,628	58,334	1,413	4,609	88,311
	327	23,628	58,334	1,413	4,609	88,311
Closing balance 30 June 2017	23,848	8,709,210	4,102,385	119,313	35,170	12,989,926

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 2015	29,173	8,669,816	3,863,537	122,282	27,835	12,712,643
Acquisitions	2,150	160,757	172,471	6,765	-	342,143
Disposals	-	-	-	(222)	-	(222)
Total gain (losses) for the period in the net result:						
Asset write-off	-	(2,957)	(4,547)	-	-	(7,504)
Depreciation	(1,860)	(196,615)	(81,758)	(19,228)	-	(299,461)
	(1,860)	(199,572)	(86,305)	(19,228)	-	(306,965)
Total gain (losses) for the period in other comprehensive income:						
Revaluation increment/ (decrement)	(8,580)	73,567	36,218	969	2,726	104,900
	(8,580)	73,567	36,218	969	2,726	104,900
Closing balance 30 June 2016	20,883	8,704,568	3,985,921	110,566	30,561	12,852,499

(i) Valuation inputs and relationships to fair value

Refer note 1(e) for information relating to unobservable inputs and valuation processes.

South Australian Water Corporation
Notes to the consolidated financial statements
30 June 2017
(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 1(c));
- Contributed assets (refer note 1(c));
- Impairment of assets (refer note 1(f));
- Valuation and useful lives of assets (refer note 1(e));
- Provision for long service leave (refer note 1(l)); and
- Provision for workers compensation (refer note 1(m)).

South Australian Water Corporation
Notes to the consolidated financial statements
30 June 2017
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5 Revenue from ordinary activities

	2017	2016
	\$'000	\$'000
Community service obligations	136,092	130,423
Water and sewer rates and charges	1,075,714	1,228,872
Recoverable works	49,191	50,732
Fees and charges	41,988	43,840
Miscellaneous	236	49
Amortisation of government grant revenue	9,352	9,610
Contributed assets	47,701	39,910
Rents	1,464	1,380
Interest	35	291
	1,361,773	1,505,107

South Australian Water Corporation
Notes to the consolidated financial statements
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6 Other income

	2017 \$'000	2016 \$'000
Net gain on disposal of infrastructure, plant and equipment	75	444
Net gain on disposal of temporary water allocations	1,523	4,352
Reversal of prior year infrastructure, plant and equipment revaluation decrement	253	5
Net gain on disposal of renewable energy certificates	5,907	354
	<u>7,758</u>	<u>5,155</u>

7 Expenses

	2017 '000	2016 '000
Profit before income tax includes the following specific expenses:		
Depreciation (note 16)		
Buildings	2,819	1,860
Plant and equipment	2,476	2,412
Other	17,516	16,816
Infrastructure assets - sewer	88,362	81,758
Infrastructure assets - water	198,517	196,615
Amortisation (note 15)		
Computer software	15,623	17,234
ADP intangible	1,700	1,700
Total depreciation and amortisation	<u>327,013</u>	<u>318,395</u>
Borrowing costs		
Interest paid/payable on short term and long term borrowings	327,954	326,654
Finance charges on capitalised leases	8,680	9,624
Total borrowing costs	<u>336,634</u>	<u>336,278</u>
Net loss from electricity derivatives at fair value through profit and loss	72	146
Finance lease contingent rentals	5,235	4,950
Operating lease minimum lease payments	12,064	11,411
Net bad and doubtful debts (recovery)/expense including movements in allowance for doubtful debts	(5,742)	5,554
Infrastructure, plant and equipment revaluation decrement	3	14,356
Write-off in value of infrastructure, plant, equipment, and capital WIP	14,322	12,492

7 Expenses (continued)

Write-off in value of purchased seasonal water allocations	-	16,449
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Consultancy costs

Less than \$10,000 (Number 2017: 2; 2016: 4)	7	17
Between \$10,000 and \$50,000 (Number 2017: 8; 2016: 7)	247	190
Greater than \$50,000 (Number 2017: 1; 2016: 4)	276	305

	530	512
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Superannuation contribution	17,788	16,828
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8 Income tax expense

(a) Income tax expense

	2017 \$'000	2016 \$'000
Current tax	68,313	113,977
Deferred tax	(13,880)	(25,680)
Amounts (over)/under provided in prior years	(262)	6
	54,171	88,303

Deferred income tax (revenue) included in income tax expense comprises:

Decrease/(Increase) in deferred tax assets (note 14)	1,534	(7,653)
(Decrease) in deferred tax liabilities (note 24)	(15,414)	(18,027)
	(13,880)	(25,680)

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

	2017 \$'000	2016 \$'000
Profit from continuing operations before income tax expense	188,526	301,408
Tax at the Australian tax rate of 30.0% (2016: 30.0%)	56,558	90,422
Tax effect of amounts which are not deductible (taxable) in calculating taxable income:		
Loss on sale of land	19	8
ADP intangible asset amortisation	510	510
Government grants	(2,618)	(2,626)
Provision for employee benefits	(36)	(17)
	54,433	88,297
Amounts (over)/under provided in prior years	(262)	6
Income tax expense	54,171	88,303

South Australian Water Corporation
Notes to the consolidated financial statements
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8 Income tax expense (continued)

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

	2017 \$'000	2016 \$'000
Gain on revaluation of infrastructure, plant and equipment	25,078	31,838
Revaluation of investment in unlisted shares	1,383	818
	<u>26,461</u>	<u>32,656</u>

9 Current assets - Receivables

	2017 \$'000	2016 \$'000
Receivables		
Rates receivable (water and sewer)	170,518	176,681
Sundry debtors	29,704	28,933
Allowance for doubtful debts	(40)	(6,064)
	<u>200,182</u>	<u>199,550</u>
Other receivables		
Community Service Obligations	18,376	13,064
	<u>218,558</u>	<u>212,614</u>

(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:

	2017 \$'000	2016 \$'000
More than 90 days overdue	40	6,064

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

Opening balance at 1 July	6,064	615
Provision for impairment recognised during the year	12	6,045
Amounts written off	(15)	(15)
Amounts reversed	(6,021)	(581)
Closing balance at 30 June	<u>40</u>	<u>6,064</u>

9 Current assets - Receivables (continued)

(b) Past due but not impaired

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

	2017 \$'000	2016 \$'000
Up to 3 months	24,861	35,626
More than 3 months	19,850	13,918
	44,711	49,544

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 \$11.824m (2016: \$13.246m).

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

	2017 \$'000	2016 \$'000
Up to 1 month	2,767	2,170
More than 1 month	1,540	1,237
	4,307	3,407

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 \$0.971m (2016: \$1.068m).

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 2017
(continued)

10 Current assets - Inventories

	2017	2016
	\$'000	\$'000
Raw materials and stores	6,995	7,837
Allowance for obsolete stock	(356)	(1,377)
Work in progress	1,773	486
	8,412	6,946

11 Current assets - Financial assets

	2017	2016
	\$'000	\$'000
Electricity derivatives		
Settlement residue auction units	623	810
Electricity futures contracts	251	170
Total current derivative financial instrument assets	874	980

12 Current assets - Other current assets

	2017	2016
	\$'000	\$'000
Interest receivable	32	84
Prepayments	9,657	6,779
Renewable Energy Certificates *	2,922	5,318
	12,611	12,181

*SA Water purchases Renewable Energy Certificates (RECs) in order to meet Green House Gas (GHG) emission targets. SA Water does not purchase RECs with the intention of trading for gain. 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.

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

	2017 \$'000	2016 \$'000
Unlisted shares at fair value	35,170	30,561

14 Non-current assets - Deferred tax assets

	2017 \$'000	2016 \$'000
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The balance comprises temporary differences attributable to:

Doubtful debts	12	1,818
Obsolete stock	107	413
Infrastructure, plant and equipment	11,388	11,077
Pooled assets	103	99
Payables	1,364	1,436
Audit fee payable	121	133
Government grants	11,413	11,576
Employee benefits	12,722	13,117
Deferred lease incentives	253	293
Unearned customer contributions	4,176	3,338
Unearned income	228	124
Provision for asset disposal	18	19
Provision for workers compensation	193	189
	42,098	43,632

Amounts recognised directly in equity

Unearned customer contributions	2,335	2,335
Revaluation of Infrastructure, plant and equipment	1,027	-
Total deferred tax assets	45,460	45,967

	2017 \$'000	2016 \$'000
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Movements:

Opening balance at 1 July	45,967	38,314
Charged to the statement of comprehensive income (note 8)	(1,534)	7,653
Charged to equity (note 30)	1,027	-
Closing balance at 30 June	45,460	45,967

Deferred tax assets expected to be recovered within 12 months	12,454	13,655
Deferred tax assets expected to be recovered after more than 12 months	33,006	32,312
	45,460	45,967

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

15 Non-current assets - Intangible assets

Year ended 30 June 2017
Opening net book amount
Additions
Amortisation charge
Closing net book amount

	Easements \$'000	Prescription rights \$'000	Computer software \$'000	ADP intangible \$'000	Purchased water rights \$'000	Seasonal Water Allocations \$'000	Total \$'000
	6,213	4,500	31,302	62,974	30,776	37,959	173,724
	-	-	23,217	-	-	-	23,217
	-	-	(15,623)	(1,700)	-	-	(17,323)
	6,213	4,500	38,896	61,274	30,776	37,959	179,618

At 30 June 2017
Cost
Accumulated amortisation
Net book amount

	6,213	4,500	178,547	70,982	30,776	37,959	328,977
	-	-	(139,651)	(9,708)	-	-	(149,359)
	6,213	4,500	38,896	61,274	30,776	37,959	179,618

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 2016							
Opening net book amount	6,213	4,500	37,979	64,674	23,178	54,408	190,952
Additions	-	-	10,557	-	7,598	-	18,155
Amortisation charge	-	-	(17,234)	(1,700)	-	-	(18,934)
Write off	-	-	-	-	-	(16,449)	(16,449)
Closing net book amount	6,213	4,500	31,302	62,974	30,776	37,959	173,724
At 30 June 2016							
Cost	6,213	4,500	155,330	70,982	30,776	37,959	305,760
Accumulated amortisation	-	-	(124,028)	(8,008)	-	-	(132,036)
Net book amount	6,213	4,500	31,302	62,974	30,776	37,959	173,724

South Australian Water Corporation
Notes to the consolidated financial statements
30 June 2017
(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 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)	(309,690)
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
Valuation	-	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)	(18,885)	(185,117)	(9,230,690)
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

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 2016										
Opening net book amount	436,638	364,288	29,173	23,584	17,393	8,580,281	3,839,953	89,535	104,889	13,485,734
Revaluation surplus	-	(4,946)	(8,580)	219	-	72,738	35,999	829	969	97,228
Additions	319,505	-	2,150	-	5,310	159,164	172,471	1,593	1,455	661,648
Transfers	(328,166)	-	-	-	-	-	-	-	-	(328,166)
Depreciation charge	-	-	(1,860)	(782)	(2,412)	(192,136)	(80,976)	(4,479)	(16,816)	(299,461)
Asset write down	(4,988)	-	-	-	-	(2,957)	(4,547)	-	-	(12,492)
Disposals	-	(248)	-	-	(222)	-	-	-	-	(470)
Closing 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
At 30 June 2016										
Cost	422,989	-	-	-	47,969	-	-	-	-	470,958
Valuation	-	359,094	81,926	30,684	-	14,443,319	6,564,765	211,359	255,553	21,946,700
Accumulated depreciation	-	-	(61,043)	(7,663)	(27,900)	(5,826,229)	(2,601,865)	(123,881)	(165,056)	(8,813,637)
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

South Australian Water Corporation
Notes to the consolidated financial statements
30 June 2017
(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:

	2017 \$'000	2016 \$'000
Freehold land		
Cost	52,795	50,199
Net book amount	<u>52,795</u>	<u>50,199</u>
Buildings		
Cost	53,909	48,451
Accumulated depreciation	(27,919)	(25,244)
Net book amount	<u>25,990</u>	<u>23,207</u>
Leased sewer infrastructure		
Cost	18,792	18,792
Accumulation depreciation	(5,638)	(5,168)
Net book amount	<u>13,154</u>	<u>13,624</u>
Water infrastructure		
Cost	4,676,535	4,518,885
Accumulated depreciation	(1,137,467)	(1,051,300)
Net book amount	<u>3,539,068</u>	<u>3,467,585</u>
Sewer infrastructure		
Cost	2,302,023	2,168,986
Accumulated depreciation	(945,001)	(872,914)
Net book amount	<u>1,357,022</u>	<u>1,296,072</u>
Leased water infrastructure		
Cost	124,183	124,183
Accumulation depreciation	(73,467)	(71,109)
Net book amount	<u>50,716</u>	<u>53,074</u>
Other		
Cost	228,540	203,856
Accumulated depreciation	(142,924)	(127,490)
Net book amount	<u>85,616</u>	<u>76,366</u>

17 Current liabilities - Payables

	2017 \$'000	2016 \$'000
Interest payable	81,634	58,500
Trade creditors	109,191	115,298
Other creditors	12,944	15,821
	<u>203,769</u>	<u>189,619</u>

18 Current liabilities - Financial liabilities/borrowings

	2017 \$'000	2016 \$'000
Lease liabilities note (note 31)	9,961	8,904
Short term borrowings	29,274	16,874
	<u>39,235</u>	<u>25,778</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.

19 Current liabilities - Tax liabilities (receivables)

	2017 \$'000	2016 \$'000
Provision for current income tax movements during the year were as follows:		
Opening balance at 1 July	9,783	3,073
Income tax paid	(83,493)	(107,273)
Current year's income tax provision	68,313	113,977
Amounts (over)/under provided in prior years	(262)	6
	<u>(5,659)</u>	<u>9,783</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 2017
(continued)

20 Current liabilities - Provisions

	2017	2016
	\$'000	\$'000
Employee benefits	15,654	15,723
Asset disposal	60	20
Damages and claims	91	128
Workers compensation	932	972
	16,737	16,843

(a) Movements in provisions

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

2017	Asset	Damages and	Workers	Total
Current	disposal	claims	compensation	\$'000
	\$'000	\$'000	\$'000	\$'000
Opening balance at 1 July	20	128	972	1,120
Provisions recognised	-	595	1,051	1,646
Payments made during year	(2)	(632)	(634)	(1,268)
Re-measurement adjustments	-	-	(457)	(457)
Transfer from non-current provisions	42	-	-	42
Closing balance at 30 June	60	91	932	1,083

21 Current liabilities - Other current liabilities

	2017	2016
	\$'000	\$'000
Government grants	9,606	9,690
Lease incentives	134	134
Unearned income	22,129	19,300
Deposits from customers	1,408	1,080
	33,277	30,204

22 Non-current liabilities - Payables

	2017 \$'000	2016 \$'000
Other payables	2,296	2,512

23 Non-current liabilities - Financial liabilities/borrowings

	2017 \$'000	2016 \$'000
Lease liabilities (note 31)	60,165	70,126
Long term borrowings	6,346,000	6,263,000
	6,406,165	6,333,126

24 Non-current liabilities - Deferred tax liabilities

	2017 \$'000	2016 \$'000
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The balance comprises temporary differences attributable to:

Prepayments	1,801	824
Derivative financial instruments	2	27
Unlisted shares at fair value	(2,406)	(2,406)
Seasonal Water Allocations	11,388	11,388
Infrastructure, plant and equipment	(8,572)	7,794
	2,213	17,627

Amounts recognised directly in equity

Revaluation of infrastructure, plant and equipment	1,663,075	1,636,970
Unlisted shares at fair value	8,502	7,119
	1,671,577	1,644,089

Total deferred tax liabilities	1,673,790	1,661,716
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Movements:

Opening balance at 1 July	1,661,716	1,647,087
Credited to the Statement of Comprehensive Income (note 8)	(15,414)	(18,027)
Charged to equity (note 30)	26,105	31,838
Unlisted shares at fair value	1,383	818
Closing balance at 30 June	1,673,790	1,661,716

Deferred tax liabilities to be settled within 12 months	1,804	852
Deferred tax liabilities expected to be settled after more than 12 months	1,671,986	1,660,864
	1,673,790	1,661,716

South Australian Water Corporation
Notes to the consolidated financial statements
30 June 2017
(continued)

25 Non-current liabilities - Provisions

	2017 \$'000	2016 \$'000
Employee benefits	26,751	28,001
Workers compensation	3,039	2,914
Asset disposal	-	42
	<u>29,790</u>	<u>30,957</u>

(a) Movements in provisions

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

2017 Non-current	Workers compensation \$'000	Asset disposal \$'000	Total \$'000
Opening balance at 1 July	2,914	42	2,956
Transfer to current provision	-	(42)	(42)
Re-measurement adjustments	125	-	125
Closing balance at 30 June	<u>3,039</u>	<u>-</u>	<u>3,039</u>

26 Non-current liabilities - Other non-current liabilities

	2017 \$'000	2016 \$'000
Government grants	370,162	379,407
Lease incentives	709	843
	<u>370,871</u>	<u>380,250</u>

27 Reconciliation of cash

	2017	2016
	\$'000	\$'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	2,450	3,248

(a) Fair Value

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

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

	2017	2016
	\$'000	\$'000
Net profit for the year	134,355	213,105
Add/(less) non-cash items:		
Depreciation and amortisation	327,013	318,395
Amortisation of government grant revenue	(9,352)	(9,610)
Contributed assets	(41,313)	(32,130)
Net (gain) on disposal of infrastructure, plant and equipment	(75)	(502)
Net (gain) on disposal of temporary water allocations	(1,546)	(4,426)
Infrastructure, plant and equipment revaluation decrement reversal	(253)	(5)
Infrastructure, plant and equipment revaluation decrement	3	14,356
Write-off in value of infrastructure, plant and equipment and capital WIP	14,322	12,492
Write-off in value of purchased seasonal water allocations	-	16,449
Net (gain) on disposal of renewable energy certificates	(5,911)	(354)
Change in assets and liabilities:		
(Increase) in receivables	(5,944)	(13,101)
(Increase) in inventories	(1,466)	(146)
(Increase) in prepayments	(2,878)	(2,636)
Decrease/(increase) in other operating assets	44	(2,519)
Decrease/(increase) in derivative financial assets	106	(980)
Decrease/(increase) in deferred tax assets	1,534	(7,653)
(Increase) in income tax receivable	(5,659)	-
(Decrease)/increase in trade creditors	(5,210)	495
(Decrease)/increase in provision for employee benefits	(1,319)	1,029
Increase/(decrease) in provision for workers compensation	85	(631)
Increase in other operating liabilities	24,047	13,642
Increase in government grants	45	99
(Decrease)/increase in other provisions	(39)	103
(Decrease) in deferred tax liabilities	(15,414)	(18,027)
(Decrease)/increase in income tax payable	(9,783)	6,710
Net cash inflow from operating activities	395,392	504,155

South Australian Water Corporation
Notes to the consolidated financial statements
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29 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 2016 and 30 June 2017 were as follows:

	2017	2016
	\$'000	\$'000
Interest bearing borrowings (note 18, 23)	6,445,400	6,358,904
Less: Cash and cash equivalents (note 27)	(2,450)	(3,248)
Net debt	6,442,950	6,355,656
Total Assets	14,194,721	14,090,242
Gearing ratio	45%	45%

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.

30 Asset revaluation surplus and retained profits

(a) Asset revaluation surplus

	2017 \$'000	2016 \$'000
Revaluation surplus - property, plant and equipment	4,969,419	4,906,924
Available-for-sale financial assets	19,837	16,611
	4,989,256	4,923,535

Movements:

Infrastructure, plant and equipment revaluation surplus

Opening balance at 1 July	4,906,924	4,829,397
Revaluation of infrastructure, plant and equipment*	89,871	111,582
Movements in deferred tax liability (note 24)	(26,105)	(31,838)
Transfer to retained profits on disposal	(2,298)	(2,217)
Movements in deferred tax assets (note 14)	1,027	-
Closing balance at 30 June	4,969,419	4,906,924

Available-for-sale investments revaluation surplus

Opening balance at 1 July	16,611	14,703
Revaluation of investment in unlisted shares	4,609	2,726
Movements in deferred tax liabilities (note 24)	(1,383)	(818)
Closing balance at 30 June	19,837	16,611

*The 2015/2016 revaluation increase (around 0.8%) is primarily attributable to the revaluation movement of pipe assets, wastewater treatment plants, desalination plant and water filtration plants.

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

South Australian Water Corporation
Notes to the consolidated financial statements
30 June 2017
(continued)

30 Asset revaluation surplus and retained profits (continued)

(b) Retained profits

Movements in retained profits were as follows:

Opening balance at 1 July	312,309	301,905
Profit for the year	134,355	213,105
Dividends (note 34)	(193,037)	(204,918)
Transfers from infrastructure, plant and equipment revaluation surplus	2,298	2,217
Closing balance at 30 June	255,925	312,309

(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.

31 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:

	2017 \$'000	2016 \$'000
Within one year	23,361	19,702
Later than one year but not later than five years	5,672	5,293
	29,033	24,995

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

(b) Operating lease commitments

	2017 \$'000	2016 \$'000
Commitments for minimum lease payments in relation to non-cancellable operating leases are committed as follows:		
Within one year	11,937	12,215
Later than one year but not later than five years	49,294	48,227
Later than five years	18,567	31,395
	79,798	91,837

The operating lease commitments relate to property leases which are non cancellable leases. The rentals are payable monthly and reviewed annually. The annual increases are based on either CPI, 1.7%, 2.5%, 3%, 3.5% or 4%.

31 Commitments and contingencies (continued)

(b) Operating lease commitments (continued)

The Corporation has an operating lease commitment for accommodation effective from 2008/09 which expires after 15 years with a market rent review renegotiation in year 10. The lease has escalation clauses and no purchase options.

(c) Other expenditure commitments

	2017	2016
	\$'000	\$'000
Future other expenditure commitments not provided for in the financial statements are committed as follows:		
Within one year	149,080	161,829
Later than one year but not later than five years	567,511	655,466
Later than five years	421,791	552,403
	1,138,382	1,369,698

Other expenditure commitments include commitments pursuant to contracts to:

Operate, manage and maintain the Adelaide metropolitan water and sewer networks and treatment plants. Refer to Note 1(d).

Operate, maintain and provide energy for the Adelaide Desalination Project. Refer to note 1(d).

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

	2017	2016
	\$'000	\$'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	60,425	70,335
Later than five years	20,797	28,471
Minimum lease payments	98,806	116,390
Future finance charges	(28,680)	(37,360)
Recognised as a liability	70,126	79,030
Representing lease liabilities:		
Current (note 18)	9,961	8,904
Non-current (note 23)	60,165	70,126
	70,126	79,030

The present value of finance lease liabilities is as follows:

Within one year	9,961	8,904
Later than one year but not later than five years	42,776	47,531
Later than five years	17,389	22,595
Minimum lease payments	70,126	79,030

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

31 Commitments and contingencies (continued)

(d) Finance leases (continued)

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:

	2017 \$'000	2016 \$'000
Within one year	5,397	4,988
Later than one year but not later than five years	18,763	19,953
Later than five years	7,173	9,138
	<u>31,333</u>	<u>34,079</u>

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.

32 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.

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 in accordance with the accounting policies described in note 1(b), under the following classifications:

	2017 \$'000	2016 \$'000
Current assets		
Cash and cash equivalents	47	16
Receivables	5	13
Total current assets	<u>52</u>	<u>29</u>
Non-current assets		
Infrastructure, plant and equipment	1,528	1,562
Total assets	<u>1,580</u>	<u>1,591</u>
Current liabilities		
Payables	48	45
Total liabilities	<u>48</u>	<u>45</u>
Net assets	<u>1,532</u>	<u>1,546</u>

33 Remuneration of auditors

	2017	2016
	\$'000	\$'000
Audit fees paid/payable:		
SA Water annual Public Finance and Audit Act audit	389	404
SA Water regulatory financial statements audit*	12	37
	401	441

* Pursuant to *Water Industry Guideline Number 2* and confirmation from ESCOSA, a full Audit Opinion Certificate on the Corporation's 2016/17 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.

34 Dividends

	2017	2016
	\$'000	\$'000
Dividend paid (a)	121,829	204,918
Dividend - interim dividend paid to SA Government (b)	71,208	-
	193,037	204,918

(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.

South Australian Water Corporation
Notes to the consolidated financial statements
30 June 2017
(continued)

35 Remuneration of employees

	Current employees 2017	Ex-Employees 2017	Current employees 2016	Ex-Employees 2016
The number of employees whose remuneration paid and payables falls within the following bands is:				
\$145,001 - 147,000*	n/a	n/a	12	-
\$147,001 - 157,000	35	-	40	3
\$157,001 - 167,000	32	2	18	1
\$167,001 - 177,000	14	2	15	1
\$177,001 - 187,000	10	1	7	-
\$187,001 - 197,000	3	-	5	-
\$197,001 - 207,000	4	-	6	-
\$207,001 - 217,000	6	-	6	-
\$217,001 - 227,000	1	-	1	-
\$227,001 - 237,000	1	1	2	-
\$237,001 - 247,000	2	-	2	-
\$247,001 - 257,000	-	-	2	-
\$257,001 - 267,000	2	1	1	-
\$277,001 - 287,000	1	2	-	-
\$287,001 - 297,000	-	-	2	-
\$297,001 - 307,000	2	1	-	-
\$307,001 - 317,000	1	-	2	-
\$317,001 - 327,000	-	-	-	1
\$327,001 - 337,000	-	1	-	-
\$337,001 - 347,000	1	-	1	-
\$347,001 - 357,000	-	-	1	-
\$367,001 - 377,000	1	-	-	-
\$387,001 - 397,000	-	-	1	-
\$407,001 - 417,000	1	1	-	-
\$557,001 - 567,000	1	-	-	-
\$787,001 - 797,000	-	-	1	-
Total	118	12	125	6

*This band has been included for the purposes of reporting comparative figures based on the executive base level remuneration rate for 2015-16.

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 \$24.7m (2016: \$24.2m).

35 Remuneration of employees (continued)

	2017	2016
	\$'000	\$'000
Targeted voluntary separation packages(TVSPs)		
Amount paid during the reporting period to separated employees:		
TVSPs	557	-
Annual leave and long service leave paid to those employees	297	-
Net cost to SA Water	854	-

The number of employees who received TVSPs during the reporting period was 5 (2016: 0).

36 Remuneration of directors

The Board of SA Water was established under the South Australian Water Corporation Act 1994 and consists of up to seven 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 35 and 37.

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

	2017	2016
	Number of directors	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	3	3
\$50,000 - \$59,999	2	2
\$80,000 - \$89,999	1	1
	6	6

The total remuneration paid and payable for those Directors was \$0.32m (2016: \$0.32m) which includes superannuation contributions.

South Australian Water Corporation
Notes to the consolidated financial statements
30 June 2017
(continued)

37 Related party disclosures

(a) Directors

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

R.J.G.A. Cheroux, S.G.M. Blencowe, S.M. Filby, K.A. Maywald, L.W. Owens, C.A. Pickles and I.F. Stirling.

Mr J.R. Ringham was Chief Executive (and hence director) of the corporation until 1 July 2016. Mr Cheroux commenced as Chief Executive (and hence director) of the corporation on 2 July 2016.

Mr Cheroux is a member of the Water Services Association of Australia board, a member of the Advisory Council of the French Australian Chamber of Commerce (FACCI) and the SA Government French Engagement Advisory Group. Mr Cheroux is also a member of the Advisory Committee of the Australian Water Partnership.

Ms Blencowe is a deputy presiding member of the City of Port Adelaide Enfield Development Assessment Panel, and a member of the City of Port Adelaide Enfield Development Assessment Committee.

Ms Filby is a member of the Development Policy Advisory Committee, and chair of the SA Power Networks Customer Panel. Ms Filby also is a facilitator with Behind Closed Doors and volunteer with Calvary Health Care.

Ms Maywald is managing director of Maywald Consultants Pty Ltd whose clients, in the course of the year, included the WA Water Corporation, Enzen Australia and Stoney Pinch Sands Pty Ltd. Ms Maywald is a director of ModMed (formerly Sturt Fleurieu Education and Training), chair of the International Centre of Excellence in Water Resources Management (ICEWaRM), member of the Advisory Council of Flinders University New Venture Institute, member of the Adelaide International 3 Day Event board, partner in DR and KA Maywald, strategic advisor to the Department of State Development, and director of GPEx. Ms Maywald also is a facilitator with Behind Closed Doors.

Mr Owens is a reconciliation ambassador for Reconciliation SA, and non-executive director of Australian Gas Networks. Mr Owens was chair of the Upper Spencer Gulf Common Purpose Group and a member of the City of Marion Audit Committee. Mr Owens also provided advice on energy related matters to the SA Government in the course of the year.

Mr Stirling is executive chairman of Stirling Advisory Pty Ltd whose clients, during the course of the year, included Ausnet Services and Hastings Funds Management. Mr Stirling is a director of A Noble and Son Limited Group of Companies, a member of the University of Adelaide Business School Advisory Board, and director of the Adelaide Botanic Gardens Foundation Inc. For a short period, Mr Stirling was a director of both NSW Power Networks Operator Holding Pty Ltd and NSW Power Networks Operator Pty Ltd.

All financial benefits provided by SA Water to related parties are provided on arm's length terms.

37 Related party disclosures (continued)

(b) Key management personnel

Key management personnel compensation for the years ended 30 June 2017 and 2016 is set out below. The key management personnel are the Directors of the Corporation (including the Chief Executive) and the Senior Leadership Team 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
2017*	18	3,073	280	9	-	3,362
2016*	17	3,243	294	-	-	3,537

*Both 2017 and 2016 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. 2016 compensation has been recalculated, for the purpose of reporting comparative figures.

South Australian Water Corporation
Notes to the consolidated financial statements
30 June 2017
(continued)

38 Statement of Administered items

	2017		2016
	River Murray Levy \$'000	Total \$'000	Total \$'000
Consolidated entity			
Administered Income			
Revenue	(5)	(5)	(103)
Total Administered Revenues	(5)	(5)	(103)
Expenses	(5)	(5)	(103)
Total Administered Expenses	(5)	(5)	(103)
Operating Surplus	-	-	-
Consolidated entity			
Current Assets			
Cash and cash equivalents	48	48	339
Total Current Assets	48	48	339
Total Administered Assets	48	48	339
Current Liabilities			
Payables	48	48	339
Total Current Liabilities	48	48	339
Total Administered Liabilities	48	48	339
Net Assets	-	-	-

38 Statement of Administered items (continued)

	2017		2016
	River Murray Levy \$'000	Total \$'000	Total \$'000
Consolidated entity			
Cash flows from operating activities			
Cash inflows	(5)	(5)	1,482
Total Cash Inflows	(5)	(5)	1,482
Cash outflows	286	286	1,322
Total Cash Outflows	286	286	1,322
Net cash inflow/(outflow) from operating activities	(291)	(291)	160
Net increase/(decrease) in cash held	(291)	(291)	160
Cash at the beginning of the reporting period	339	339	179
Cash at the end of the reporting period	48	48	339

South Australian Water Corporation
Notes to the consolidated financial statements
30 June 2017
(continued)

39 SA Government transactions

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

	2017 \$'000	2016 \$'000
Rates and charges	44,854	61,425
Community service obligations	136,092	130,423
Recoverable works	13,644	11,225
Fees and charges	292	21
Miscellaneous	3	2
Government grants	282	515
Interest received	-	238
Total revenue - SA Government entities	195,167	203,849

(b) Expenses

Supplies and services

	2017 \$'000	2016 \$'000
Provided by entities within the SA Government		
Operational services	38,338	39,080
Administration	34,482	33,392
Materials & Other	49	5
Payroll tax	7,558	7,551
Maintenance contracts	1,728	3,407
Total supplies and services - SA Government entities	82,155	83,435

Borrowing costs

Provided by entities within the SA Government

Interest expense	327,954	326,654
Total Borrowing Costs provided by entities within the SA Government	327,954	326,654

39 SA Government transactions (continued)

(c) Receivables

	2017 \$'000	2016 \$'000
Receivables from SA Government entities		
Community service obligations	18,376	13,064
Rates receivable (water and sewer)	1,157	2,287
Sundry debtors	4,966	1,523
	24,499	16,874

(d) Payables

Current

	2017 \$'000	2016 \$'000
Payables to SA Government entities		
Trade creditors	15,332	14,574
Interest payable	81,634	58,500
Other creditors	2,141	2,298
	99,107	75,372

Non-Current

Payables to SA Government entities

Other creditors	1,352	1,414
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DRINKING QUALITY WATER DATA

TABLE I

2016-17 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	5	116	42	12	18	80	50
Dissolved Organic Carbon [mg/L]	52	3.2	20.3	8.9	52	5.2	11.0	8.5
Fluoride [mg/L]	12	<0.1	0.21	0.14	12	0.20	0.25	0.23
Hardness – Total [mg/L]	13	69	90	79	13	97	142	117
Nitrate as Nitrogen [mg/L]	26	0.019	0.439	0.186	26	0.010	0.278	0.149
pH [pH units]	12	7.1	8.2	7.6	12	7.1	8.2	7.7
Phosphorus – Total [mg/L]	26	0.028	0.158	0.059	26	0.014	0.125	0.040
Total Dissolved Solids [mg/L]	12	100	350	209	12	240	310	274
Turbidity [NTU]	12	6.0	74	25	12	1.9	9.2	4.8

PARAMETER	BAROSSA WTP				LITTLE PARA WTP			
	SAMPLES	MIN	MAX	AVE*	SAMPLES	MIN	MAX	AVE*
Colour – True (456nm) [HU]	12	15	57	42	9	15	61	38
Dissolved Organic Carbon [mg/L]	52	9.1	14.1	11.7	38	4.8	9.2	7.7
Fluoride [mg/L]	12	0.22	0.36	0.28	9	0.21	0.26	0.24
Hardness – Total [mg/L]	13	77	132	100	13	91	123	107
Nitrate as Nitrogen [mg/L]	25	<0.005	0.036	0.014	26	0.276	0.400	0.346
pH [pH units]	12	7.1	8.1	7.5	9	7.1	7.5	7.4
Phosphorus – Total [mg/L]	25	0.011	0.328	0.043	26	0.017	0.117	0.043
Total Dissolved Solids [mg/L]	12	270	450	332	9	250	300	277
Turbidity [NTU]	12	0.41	1.7	1.0	9	8.2	20	14

PARAMETER	HAPPY VALLEY WTP				MYPONGA WTP			
	SAMPLES	MIN	MAX	AVE*	SAMPLES	MIN	MAX	AVE*
Colour – True (456nm) [HU]	12	36	91	71	12	53	136	98
Dissolved Organic Carbon [mg/L]	52	4.7	10.8	9.1	52	11.1	17.5	15.2
Fluoride [mg/L]	12	0.13	0.22	0.20	12	0.16	0.21	0.18
Hardness – Total [mg/L]	13	72	87	78	13	84	120	95
Nitrate as Nitrogen [mg/L]	26	<0.005	0.189	0.074	26	<0.005	0.192	0.097
pH [pH units]	12	7.2	8.3	7.8	12	7.2	7.8	7.4
Phosphorus – Total [mg/L]	26	0.030	0.483	0.085	26	0.040	0.187	0.107
Total Dissolved Solids [mg/L]	12	190	240	216	12	270	390	305
Turbidity [NTU]	12	5.9	41	14	12	1.5	8.8	4.0

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

TABLE 2

2016-17 Metropolitan Adelaide Distribution system customer tap water quality against ADWG

PARAMETER	ANSTEY HILL METRO SYSTEM						
	HEALTH GUIDELINE	AESTHETIC GUIDELINE	SAMPLES	MIN	MAX	AVE*	% COMPLIANCE
Chlorine Residual – Free [mg/L]	≤ 5[mg/L]	-	283	<0.1	1.4	0.2	100
Chlorine Residual – Free [mg/L]		≤ 0.6[mg/L]	283	<0.1	1.4	0.2	87.3
Colour – True (456nm) [HU]		≤ 15[HU]	8	<1	4	2	100
<i>E.coli</i> [per cfu/100mL]	++	-	280	0	1	0	99.6
Fluoride [mg/L]	≤ 1.5[mg/L]	-	8	0.77	1.0	0.89	100
Hardness – Total [mg/L]		≤ 200[mg/L]	8	42	124	78	100
Iron – Total [mg/L]		≤ 0.3[mg/L]	8	0.0042	0.0133	0.0095	100
Manganese – Total [mg/L]	≤ 0.5[mg/L]	-	8	0.0004	0.0014	0.0008	100
Manganese – Total [mg/L]		≤ 0.1[mg/L]	8	0.0004	0.0014	0.0008	100
pH [pH Units]		6.5 - 8.5[pH units]	26	7.1	7.9	7.4	100
Total Dissolved Solids [mg/L]		≤ 600[mg/L]	8	140	410	246	100
Trihalomethanes – Total [µg/L]	≤ 250[µg/L]	-	56	40	244	131	100
Turbidity [NTU]		≤ 5[NTU]	26	<0.1	0.55	0.12	100

PARAMETER	BAROSSA METRO SYSTEM						
	HEALTH GUIDELINE	AESTHETIC GUIDELINE	SAMPLES	MIN	MAX	AVE*	% COMPLIANCE
Chlorine Residual – Free [mg/L]	≤ 5[mg/L]	-	137	<0.1	1.0	0.3	100
Chlorine Residual – Free [mg/L]		≤ 0.6[mg/L]	137	<0.1	1.0	0.3	87.6
Colour – True (456nm) [HU]		≤ 15[HU]	8	<1	2	<1	100
<i>E.coli</i> [per cfu/100mL]	++	-	137	0	0	0	100
Fluoride [mg/L]	≤ 1.5[mg/L]	-	8	0.23	0.96	0.72	100
Hardness – Total [mg/L]		≤ 200[mg/L]	8	103	155	126	100
Iron – Total [mg/L]		≤ 0.3[mg/L]	8	0.0025	0.0130	0.0075	100
Manganese – Total [mg/L]	≤ 0.5[mg/L]	-	8	0.0013	0.0144	0.0045	100
Manganese – Total [mg/L]		≤ 0.1[mg/L]	8	0.0013	0.0144	0.0045	100
pH [pH Units]		6.5 - 8.5[pH units]	26	7.0	7.7	7.3	100
Total Dissolved Solids [mg/L]		≤ 600[mg/L]	8	310	460	374	100
Trihalomethanes – Total [µg/L]	≤ 250[µg/L]	-	44	156	237	187	100
Turbidity [NTU]		≤ 5[NTU]	26	<0.1	3.8	0.25	100

PARAMETER	CENTRAL METRO SYSTEM						
	HEALTH GUIDELINE	AESTHETIC GUIDELINE	SAMPLES	MIN	MAX	AVE*	% COMPLIANCE
Chlorine Residual – Free [mg/L]	≤ 5[mg/L]	-	1376	<0.1	1.9	0.3	100
Chlorine Residual – Free [mg/L]		≤ 0.6[mg/L]	1376	<0.1	1.9	0.3	83.7
Colour – True (456nm) [HU]		≤ 15[HU]	36	<1	2	<1	100
<i>E.coli</i> [per cfu/100mL]	++	-	1373	0	1	0	99.9
Fluoride [mg/L]	≤ 1.5[mg/L]	-	36	<0.1	0.98	0.60	100
Hardness – Total [mg/L]		≤ 200[mg/L]	36	78	110	96	100
Iron – Total [mg/L]		≤ 0.3[mg/L]	36	0.0019	0.0316	0.0085	100
Manganese – Total [mg/L]	≤ 0.5[mg/L]	-	36	<0.0001	0.0048	0.0014	100
Manganese – Total [mg/L]		≤ 0.1[mg/L]	36	<0.0001	0.0048	0.0014	100
pH [pH Units]		6.5 - 8.5[pH units]	117	7.0	7.9	7.3	100
Total Dissolved Solids [mg/L]		≤ 600[mg/L]	36	190	270	242	100
Trihalomethanes – Total [µg/L]	≤ 250[µg/L]	-	224	72	278	142	99.6
Turbidity [NTU]		≤ 5[NTU]	117	<0.1	6.0	0.15	99.1

++*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.

TABLE 2 Continued

PARAMETER	EAST METRO SYSTEM						
	HEALTH GUIDELINE	AESTHETIC GUIDELINE	SAMPLES	MIN	MAX	AVE*	% COMPLIANCE
Chlorine Residual – Free [mg/L]	≤ 5[mg/L]	-	398	<0.1	1.6	0.2	100
Chlorine Residual – Free [mg/L]		≤ 0.6[mg/L]	398	<0.1	1.6	0.2	93.2
Colour – True (456nm) [HU]		≤ 15[HU]	12	<1	2	1	100
<i>E.coli</i> [per cfu/100mL]	++	-	395	0	0	0	100
Fluoride [mg/L]	≤ 1.5[mg/L]	-	12	0.37	0.97	0.85	100
Hardness – Total [mg/L]		≤ 200[mg/L]	12	68	102	93	100
Iron – Total [mg/L]		≤ 0.3[mg/L]	12	0.0027	0.0472	0.0149	100
Manganese – Total [mg/L]	≤ 0.5[mg/L]	-	12	0.0004	0.0062	0.0016	100
Manganese – Total [mg/L]		≤ 0.1[mg/L]	12	0.0004	0.0062	0.0016	100
pH [pH Units]		6.5 - 8.5[pH units]	39	7.0	8.4	7.4	100
Total Dissolved Solids [mg/L]		≤ 600[mg/L]	12	190	320	265	100
Trihalomethanes – Total [µg/L]	≤ 250[µg/L]	-	69	49	274	151	98.6
Turbidity [NTU]		≤ 5[NTU]	65	<0.1	1.2	0.15	100

PARAMETER	MYPONGA METRO SYSTEM						
	HEALTH GUIDELINE	AESTHETIC GUIDELINE	SAMPLES	MIN	MAX	AVE*	% COMPLIANCE
Chlorine Residual – Free [mg/L]	≤ 5[mg/L]	-	99	<0.1	0.6	0.1	100
Chlorine Residual – Free [mg/L]		≤ 0.6[mg/L]	99	<0.1	0.6	0.1	100
Colour – True (456nm) [HU]		≤ 15[HU]	4	<1	2	1	100
<i>E.coli</i> [per cfu/100mL]	++	-	99	0	100	1	99.0
Fluoride [mg/L]	≤ 1.5[mg/L]	-	4	<0.1	0.92	0.44	100
Hardness – Total [mg/L]		≤ 200[mg/L]	4	96	105	99	100
Iron – Total [mg/L]		≤ 0.3[mg/L]	4	0.0030	0.0184	0.0099	100
Manganese – Total [mg/L]	≤ 0.5[mg/L]	-	4	0.0005	0.0076	0.0025	100
Manganese – Total [mg/L]		≤ 0.1[mg/L]	4	0.0005	0.0076	0.0025	100
pH [pH Units]		6.5 - 8.5[pH units]	13	7.1	7.5	7.4	100
Total Dissolved Solids [mg/L]		≤ 600[mg/L]	4	230	340	290	100
Trihalomethanes – Total [µg/L]	≤ 250[µg/L]	-	49	91	226	171	100
Turbidity [NTU]		≤ 5[NTU]	13	<0.1	0.15	0.10	100

PARAMETER	NORTH METRO SYSTEM						
	HEALTH GUIDELINE	AESTHETIC GUIDELINE	SAMPLES	MIN	MAX	AVE*	% COMPLIANCE
Chlorine Residual – Free [mg/L]	≤ 5[mg/L]	-	483	<0.1	1.3	0.2	100
Chlorine Residual – Free [mg/L]		≤ 0.6[mg/L]	483	<0.1	1.3	0.2	91.1
Colour – True (456nm) [HU]		≤ 15[HU]	16	<1	3	2	100
<i>E.coli</i> [per cfu/100mL]	++	-	483	0	0	0	100
Fluoride [mg/L]	≤ 1.5[mg/L]	-	16	0.80	0.95	0.88	100
Hardness – Total [mg/L]		≤ 200[mg/L]	16	61	132	100	100
Iron – Total [mg/L]		≤ 0.3[mg/L]	16	0.0034	0.0414	0.0114	100
Manganese – Total [mg/L]	≤ 0.5[mg/L]	-	16	0.0004	0.0089	0.0019	100
Manganese – Total [mg/L]		≤ 0.1[mg/L]	16	0.0004	0.0089	0.0019	100
pH [pH Units]		6.5 - 8.5[pH units]	52	7.0	7.8	7.3	100
Total Dissolved Solids [mg/L]		≤ 600[mg/L]	16	190	350	271	100
Trihalomethanes – Total [µg/L]	≤ 250[µg/L]	-	88	60	286	153	96.6
Turbidity [NTU]		≤ 5[NTU]	52	<0.1	0.37	0.11	100

TABLE 2 Continued

PARAMETER	SOUTH METRO SYSTEM						
	HEALTH GUIDELINE	AESTHETIC GUIDELINE	SAMPLES	MIN	MAX	AVE*	% COMPLIANCE
Chlorine Residual – Free [mg/L]	≤ 5[mg/L]	-	97	<0.1	1.0	0.1	100
Chlorine Residual – Free [mg/L]		≤ 0.6[mg/L]	97	<0.1	1.0	0.1	99.0
Colour – True (456nm) [HU]		≤ 15[HU]	4	<1	2	<1	100
<i>E.coli</i> [per cfu/100mL]	++	-	97	0	0	0	100
Fluoride [mg/L]	≤ 1.5[mg/L]	-	4	0.13	1.0	0.56	100
Hardness – Total [mg/L]		≤ 200[mg/L]	4	93	103	97	100
Iron – Total [mg/L]		≤ 0.3[mg/L]	4	0.0059	0.0063	0.0060	100
Manganese – Total [mg/L]	≤ 0.5[mg/L]	-	4	0.0004	0.0011	0.0007	100
Manganese – Total [mg/L]		≤ 0.1[mg/L]	4	0.0004	0.0011	0.0007	100
pH [pH Units]		6.5 - 8.5[pH units]	13	7.0	7.6	7.3	100
Total Dissolved Solids [mg/L]		≤ 600[mg/L]	4	230	250	243	100
Trihalomethanes – Total [µg/L]	≤ 250[µg/L]	-	34	89	196	139	100
Turbidity [NTU]		≤ 5[NTU]	13	<0.1	0.15	<0.1	100

PARAMETER	WEST METRO SYSTEM						
	HEALTH GUIDELINE	AESTHETIC GUIDELINE	SAMPLES	MIN	MAX	AVE*	% COMPLIANCE
Chlorine Residual – Free [mg/L]	≤ 5[mg/L]	-	530	<0.1	1.5	0.3	100
Chlorine Residual – Free [mg/L]		≤ 0.6[mg/L]	530	<0.1	1.5	0.3	84.3
Colour – True (456nm) [HU]		≤ 15[HU]	24	<1	4	2	100
<i>E.coli</i> [per cfu/100mL]	++	-	476	0	0	0	100
Fluoride [mg/L]	≤ 1.5[mg/L]	-	24	0.18	1.0	0.67	100
Hardness – Total [mg/L]		≤ 200[mg/L]	24	86	145	119	100
Iron – Total [mg/L]		≤ 0.3[mg/L]	24	0.0023	0.1024	0.0149	100
Manganese – Total [mg/L]	≤ 0.5[mg/L]	-	24	0.0005	0.0079	0.0021	100
Manganese – Total [mg/L]		≤ 0.1[mg/L]	24	0.0005	0.0079	0.0021	100
pH [pH Units]		6.5 - 8.5[pH units]	78	7.0	7.9	7.3	100
Total Dissolved Solids [mg/L]		≤ 600[mg/L]	126	210	550	283	100
Trihalomethanes – Total [µg/L]	≤ 250[µg/L]	-	126	86	293	177	92.1
Turbidity [NTU]		≤ 5[NTU]	78	<0.1	0.33	0.12	100

PARAMETER	METROPOLITAN ADELAIDE – TOTAL DISTRIBUTION SYSTEM						
	HEALTH GUIDELINE	AESTHETIC GUIDELINE	SAMPLES	MIN	MAX	AVE*	% COMPLIANCE
Chlorine Residual – Free [mg/L]	≤ 5[mg/L]	-	3,403	<0.1	1.9	0.3	100
Chlorine Residual – Free [mg/L]		≤ 0.6[mg/L]	3,403	<0.1	1.9	0.3	87.3
Colour – True (456nm) [HU]		≤ 15[HU]	112	<1	4	1	100
<i>E.coli</i> [per cfu/100mL]	++	-	3,340	0	100	0	99.9
Fluoride [mg/L]	≤ 1.5[mg/L]	-	112	<0.1	1.0	0.70	100
Hardness – Total [mg/L]		≤ 200[mg/L]	112	42	155	102	100
Iron – Total [mg/L]		≤ 0.3[mg/L]	112	0.0019	0.1024	0.0109	100
Manganese – Total [mg/L]		≤ 0.1[mg/L]	112	<0.0001	0.0144	0.0018	100
Manganese – Total [mg/L]	≤ 0.5[mg/L]	-	112	<0.0001	0.0144	0.0018	100
pH [pH Units]		6.5 - 8.5[pH units]	364	7.0	8.4	7.3	100
Total Dissolved Solids [mg/L]		≤ 600[mg/L]	214	140	550	276	100
Trihalomethanes – Total [µg/L]	≤ 250[µg/L]	-	690	40	293	155	97.8
Turbidity [NTU]		≤ 5[NTU]	390	<0.1	6.0	0.14	99.7

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

TABLE 3

2016-17 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*
Barmera WTP	80	290	175	N/A	N/A	N/A	2.9	26.4	10.1	7.0	8.4	7.7
Barossa WTP	270	450	332	77	132	100	9.1	14.1	11.7	7.1	8.1	7.5
Beachport IRP	620	680	658	262	272	267	0.8	0.9	0.9	7.4	7.7	7.6
Berri WTP	83	330	164	N/A	N/A	N/A	3.0	23.2	9.6	6.8	8.1	7.5
Blanchetown WTP	88	360	199	N/A	N/A	N/A	3.2	24.7	10.0	7.1	8.5	7.7
Bordertown	390	610	481	213	272	248	0.6	1.3	0.8	7.0	7.8	7.3
Cadell WTP	88	360	195	N/A	N/A	N/A	3.0	22.8	9.7	7.0	8.3	7.7
Coffin Bay	340	480	386	210	236	223	0.4	0.4	0.4	7.6	7.9	7.7
Cowirra WTP	89	340	214	N/A	N/A	N/A	3.8	20.2	10.3	7.1	8.0	7.5
Elliston	570	1000	780	239	336	288	0.4	0.5	0.5	7.4	7.7	7.5
Eyre South	430	1300	654	202	510	291	0.4	2.1	0.7	7.0	7.8	7.3
Geranium	1400	1500	1431	554	569	562	0.8	0.8	0.8	6.8	7.1	7.0
Glossop WTP	83	330	164	N/A	N/A	N/A	3.0	23.2	9.6	6.8	8.1	7.5
Happy Valley WTP	190	240	216	72	87	78	4.7	10.8	9.1	7.2	8.3	7.8
Hawker Desalination WTP	2100	2600	2308	911	1020	966	0.5	0.5	0.5	7.4	7.8	7.6
Kalangadoo IRP	510	550	533	338	343	341	1.1	1.2	1.2	7.1	7.7	7.5
Kanmantoo WTP	100	380	219	32	101	69	3.3	24.3	10.3	6.7	7.7	7.4
Kingston SE IRP	790	1100	904	205	236	215	1.0	1.0	1.0	7.2	7.8	7.6
Lameroo IRP	910	1000	948	237	238	238	0.5	0.5	0.5	7.2	8.5	7.7
Leigh Creek WTP	2100	2500	2238	588	602	593	0.5	2.1	1.3	7.4	7.9	7.6
Loxton WTP	77	360	174	N/A	N/A	N/A	2.9	24.1	9.7	6.9	8.5	7.6
Lucindale IRP	790	840	817	303	303	303	2.2	2.3	2.3	7.4	7.8	7.6
Mannum WTP	93	380	209	30	100	69	3.5	23.6	10.5	7.1	8.0	7.5
Melrose	1100	1700	1454	271	395	333	2.0	2.2	2.1	7.3	7.6	7.4
Middle River WTP	200	460	358	28	71	54	11.7	21.4	15.0	6.6	7.4	7.1
Millicent	540	770	632	337	370	352	1.0	1.4	1.1	7.4	8.0	7.6
Moorook WTP	82	290	177	N/A	N/A	N/A	3.2	25.5	9.9	7.0	8.3	7.7
Morgan WTP	85	640	217	31	91	63	3.4	24.3	10.2	7.0	8.6	7.8
Mt Burr	400	500	443	275	287	281	0.5	0.7	0.6	7.2	7.9	7.6
Mt Compass	110	250	171	42	61	51	<0.3	0.7	0.4	6.1	7.5	6.5
Mt Gambier	330	660	524	160	294	214	0.8	1.8	1.0	7.3	8.4	8.0
Mt Pleasant WTP	93	380	209	30	100	69	2.8	21.3	9.2	7.0	8.0	7.4
Murray Bridge WTP	100	380	219	32	101	69	3.3	24.3	10.3	6.7	7.7	7.4
Mypolonga WTP	100	390	213	N/A	N/A	N/A	3.0	19.8	10.0	6.8	7.8	7.4
Myponga WTP	270	390	305	84	120	95	11.1	17.5	15.2	7.2	7.8	7.4
Nangwarry	500	740	620	328	417	373	1.0	1.2	1.1	7.0	7.9	7.5
Naracoorte	1200	1300	1244	320	373	340	1.6	3.7	2.2	7.8	8.0	7.9
Orroroo	1800	2100	1927	588	602	595	0.4	0.5	0.5	7.1	7.4	7.2
Padthaway	1400	1600	1500	553	603	578	0.8	0.9	0.9	7.3	7.6	7.4
Palmer WTP	93	380	209	30	100	69	3.5	23.6	10.5	7.1	8.0	7.5
Parachilna	800	850	822	299	299	299	0.4	0.4	0.4	7.7	8.2	7.9
Parilla IRP	620	660	643	169	174	172	0.4	0.4	0.4	7.5	8.1	7.8
Penneshaw WTP	33000	37000	34816	N/A	N/A	N/A	0.9	1.3	1.2	6.7	7.6	7.2
Penola IRP	630	700	657	315	334	325	1.3	2.9	2.1	7.3	7.9	7.6
Pinnaroo IRP	660	780	705	231	251	239	0.4	0.5	0.5	7.4	7.6	7.6
Port MacDonnell	680	720	691	18	24	21	1.3	1.4	1.4	8.3	8.4	8.4
Quorn	1100	1400	1231	476	523	496	0.7	3.7	1.8	7.0	7.8	7.4

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*
Renmark WTP	75	240	146	28	79	52	2.7	25.0	10.0	6.8	8.0	7.5
Robe IRP	610	990	742	72	151	128	1.0	3.0	1.8	7.5	8.0	7.7
Summit WTP	100	380	219	32	101	69	3.3	24.3	10.3	6.7	7.7	7.4
Swan Reach Town WTP	89	340	203	N/A	N/A	N/A	3.2	21.7	9.8	7.2	8.9	7.7
Swan Reach WTP	83	360	204	31	94	65	3.3	23.9	10.6	7.2	8.7	7.8
Tailem Bend WTP	110	390	218	34	101	69	3.2	24.0	10.4	7.1	7.9	7.5
Tarpeena IRP	620	760	687	388	398	393	1.0	1.2	1.1	7.1	7.7	7.5
Waikerie WTP	85	340	186	N/A	N/A	N/A	3.6	23.2	10.2	7.1	8.4	7.7
Warooka	700	790	754	318	332	324	1.1	3.3	2.4	7.6	8.0	7.8
Wilmington	270	490	328	91	245	152	<0.3	1.9	1.1	6.2	7.6	6.8
Woolpunda	82	310	187	N/A	N/A	N/A	2.8	22.2	9.6	7.0	8.6	7.8

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

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*
Baramba WTP	8.3	97	47	6	196	52	N/A	N/A	N/A	N/A	N/A	N/A
Barossa WTP	0.41	1.7	1.0	15	57	42	<0.005	0.036	0.014	0.011	0.328	0.043
Beachport IRP	<0.1	5.0	3.0	<1	<1	<1	<0.005	<0.005	<0.005	0.037	0.040	0.039
Berri WTP	15	89	48	6	192	53	N/A	N/A	N/A	N/A	N/A	N/A
Blanchetown WTP	8.5	97	44	5	179	50	N/A	N/A	N/A	N/A	N/A	N/A
Bordertown	<0.1	50	2.9	<1	2	<1	0.006	0.470	0.114	<0.005	0.012	0.007
Cadell WTP	14	100	47	6	181	50	N/A	N/A	N/A	N/A	N/A	N/A
Coffin Bay	<0.1	0.31	0.12	<1	2	<1	0.114	0.996	0.718	0.007	0.009	0.008
Cowirra WTP	7.4	100	34	7	164	50	N/A	N/A	N/A	N/A	N/A	N/A
Elliston	<0.1	0.11	0.10	<1	<1	<1	2.53	3.60	3.07	<0.005	0.006	<0.005
Eyre South	<0.1	17	0.43	<1	<1	<1	0.103	5.41	3.05	<0.005	0.031	0.009
Geranium	<0.1	0.22	0.12	<1	<1	<1	0.030	0.089	0.060	0.034	0.036	0.035
Glossop WTP	15	89	48	6	192	53	N/A	N/A	N/A	N/A	N/A	N/A
Happy Valley WTP	5.9	41	14	36	91	71	<0.005	0.189	0.074	0.030	0.483	0.085
Hawker Desalination WTP	7.5	13	10	<1	<1	<1	<0.005	<0.005	<0.005	0.012	0.014	0.013
Kalangadoo IRP	1.6	5.8	4.1	<1	<1	<1	<0.005	<0.005	<0.005	0.017	0.023	0.020
Kanmantoo WTP	8.8	120	37	6	168	48	N/A	N/A	N/A	0.040	0.370	0.147
Kingston SE IRP	2.7	31	9.7	<1	2	<1	<0.005	0.087	0.031	0.009	0.026	0.016
Lameroo IRP	2.3	5.1	3.1	<1	<1	<1	<0.005	<0.005	<0.005	0.050	0.056	0.053
Leigh Creek WTP	<0.1	0.29	0.12	<1	<1	<1	1.27	1.37	1.32	0.010	0.014	0.012
Loxton WTP	8.0	100	49	6	204	53	<0.005	0.547	0.069	0.076	0.407	0.179
Lucindale IRP	0.29	8.9	6.3	<1	3	2	<0.005	0.006	<0.005	0.035	0.037	0.036
Mannum WTP	7.0	110	35	6	166	48	<0.005	0.283	0.069	0.074	0.408	0.177
Melrose	<0.1	1.5	0.32	<1	<1	<1	0.326	0.989	0.658	0.013	0.014	0.014
Middle River WTP	4.3	49	12	148	237	182	<0.005	0.255	0.106	0.011	0.098	0.032
Millicent	0.22	80	6.4	1	3	2	0.040	0.068	0.059	0.013	0.019	0.016
Moorook WTP	6.9	110	49	6	185	52	<0.005	0.353	0.057	0.067	0.495	0.181
Morgan WTP	1.2	110	40	6	183	50	N/A	N/A	N/A	0.033	0.387	0.158
Mt Burr	<0.1	0.34	0.15	<1	<1	<1	<0.005	0.190	0.096	0.022	0.040	0.031
Mt Compass	<0.1	22	1.2	<1	<1	<1	0.050	0.064	0.057	0.018	0.041	0.031

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*
Mt Gambier	0.12	9.5	1.1	<1	2	1	<0.005	3.61	2.45	<0.005	0.047	0.013
Mt Pleasant WTP	4.5	110	30	5	161	44	<0.005	0.283	0.069	0.074	0.408	0.177
Murray Bridge WTP	8.8	120	37	6	168	48	N/A	N/A	N/A	0.040	0.370	0.147
Mypolonga WTP	6.5	100	33	6	165	48	N/A	N/A	N/A	N/A	N/A	N/A
Myponga WTP	1.5	8.8	4.0	53	136	98	<0.005	0.192	0.097	0.040	0.187	0.107
Nangwarry	<0.1	0.65	0.18	<1	<1	<1	0.762	3.67	2.22	0.010	0.015	0.013
Naracoorte	0.21	1.5	0.36	4	6	5	<0.005	<0.005	<0.005	0.053	0.068	0.062
Orroroo	<0.1	0.26	0.11	<1	<1	<1	0.032	0.048	0.040	0.012	0.012	0.012
Padthaway	0.10	1.4	0.58	<1	<1	<1	0.042	0.070	0.056	0.014	0.015	0.015
Palmer WTP	7.0	110	35	6	166	48	<0.005	0.283	0.069	0.074	0.408	0.177
Parachilna	<0.1	0.14	0.10	<1	<1	<1	1.42	1.42	1.42	0.006	0.006	0.006
Parilla IRP	1.5	3.1	2.4	<1	<1	<1	<0.005	<0.005	<0.005	0.026	0.029	0.028
Penneshaw WTP	0.11	11	0.51	N/A	N/A	N/A	N/A	N/A	N/A	0.012	0.036	0.020
Penola IRP	5.8	14	10	1	3	2	<0.005	<0.005	<0.005	0.026	0.031	0.029
Pinnaroo IRP	0.39	6.6	3.3	<1	<1	<1	<0.005	<0.005	<0.005	0.044	0.092	0.060
Port MacDonnell	<0.1	1.0	0.23	2	7	4	<0.005	<0.005	<0.005	0.192	0.214	0.203
Quorn	<0.1	0.32	0.13	<1	<1	<1	0.097	0.158	0.119	0.019	0.026	0.022
Renmark WTP	7.3	120	53	6	199	54	<0.005	0.332	0.055	0.056	1.16	0.219
Robe IRP	0.23	3.0	0.92	<1	2	<1	<0.005	<0.005	<0.005	0.038	0.048	0.043
Summit WTP	8.8	120	37	6	168	48	N/A	N/A	N/A	0.040	0.370	0.147
Swan Reach Town WTP	11	97	40	5	177	51	N/A	N/A	N/A	N/A	N/A	N/A
Swan Reach WTP	5.1	110	40	5	181	50	<0.005	0.344	0.051	0.037	0.497	0.197
Tailem Bend WTP	5.9	200	46	6	160	47	N/A	N/A	N/A	0.050	0.525	0.179
Tarpeena IRP	0.54	19	9.0	<1	<1	<1	0.014	0.022	0.018	0.031	0.058	0.045
Waikerie WTP	7.6	100	47	6	186	51	<0.005	0.342	0.054	0.083	0.522	0.185
Warooka	<0.1	0.32	0.12	<1	<1	<1	2.55	3.65	3.25	0.007	0.021	0.015
Wilmington	<0.1	1.0	0.38	<1	3	<1	0.087	0.201	0.141	0.008	0.083	0.047
Woolpunda	12	95	49	6	181	52	N/A	N/A	N/A	N/A	N/A	N/A

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

TABLE 4

2016-17 Country drinking water distribution systems – customer tap water quality against ADWG

SYSTEM	E.COLI [per cfu/100mL]		CHLORINE RESIDUAL – FREE [mg/L]*			
	SAMPLES	HEALTH COMPLIANCE %	MIN	MAX	AVE*	HEALTH COMPLIANCE %
ADWG VALUE		++				≤ 5
TARGET		100% FREE				100%
Barmera WTP	104	100	0.2	2.4	1.3	100
Barossa WTP	368	100	<0.1	3.0	0.6	100
Beachport IRP	64	100	0.6	1.4	1.0	100
Berri WTP	88	100	<0.1	2.2	1.1	100
Blanchetown WTP	52	100	0.2	1.5	0.9	100
Bordertown	64	100	0.8	2.0	1.2	100
Cadell WTP	50	100	0.3	1.8	0.9	100
Coffin Bay	64	100	0.9	1.6	1.1	100
Cowirra WTP	64	100	<0.1	2.0	0.7	100
Elliston	102	100	0.7	1.8	1.1	100
Eyre South	327	100	0.4	2.0	1.1	100
Eyre South/Morgan WTP	335	100	<0.1	2.7	1.4	100
Geranium	51	100	0.6	2.0	1.1	100
Glossop WTP	104	100	<0.1	2.5	1.2	100
Happy Valley WTP	64	100	<0.1	1.0	0.5	100
Hawker Desalination WTP	52	100	0.4	1.3	1.0	100
Kalangadoo IRP	64	100	0.2	2.2	0.9	100
Kanmantoo WTP	77	100	0.5	2.3	1.2	100
Kingston SE IRP	66	100	0.6	1.3	1.0	100
Lameroo IRP	51	100	0.9	2.0	1.3	100
Leigh Creek WTP	29	100	0.8	1.4	1.1	100
Loxton WTP	75	100	N/A	N/A	N/A	-
Lucindale IRP	64	100	0.5	1.2	0.9	100
Mannum WTP	113	100	<0.1	2.3	1.1	100
Melrose	51	100	0.5	2.0	1.2	100
Middle River WTP	114	100	<0.1	1.8	0.7	100
Millicent	76	100	0.2	1.4	0.7	100
Moorook WTP	104	100	<0.1	2.5	1.2	100
Morgan / Swan Reach WTP	510	100	N/A	N/A	N/A	-
Morgan WTP	899	100	N/A	N/A	N/A	-
Mt Burr	63	100	0.5	1.5	0.8	100
Mt Compass	66	100	0.7	2.0	1.1	100
Mt Gambier	150	100	0.5	2.6	1.0	100
Mt Pleasant WTP	129	100	<0.1	1.9	0.7	100
Murray Bridge WTP	150	100	<0.1	4.0	1.5	100
Mypolonga WTP	65	100	<0.1	2.6	1.2	100
Myponga WTP	217	100	<0.1	1.5	0.4	100
Nangwarry	64	100	0.4	1.4	0.8	100
Naracoorte	75	100	0.2	1.0	0.6	100
Orroroo	52	100	0.8	1.7	1.2	100
Padthaway	64	100	0.5	2.2	1.0	100
Palmer WTP	112	100	<0.1	2.0	1.0	100
Parachilna	52	100	0.3	1.8	0.9	100
Parilla IRP	48	100	0.7	1.8	1.1	100
Penneshaw WTP	60	100	0.4	1.9	1.4	100
Penola IRP	66	100	0.1	1.3	0.9	100

SYSTEM	E.COLI [per cfu/100mL]		CHLORINE RESIDUAL – FREE [mg/L] [†]			
	SAMPLES	HEALTH COMPLIANCE %	MIN	MAX	AVE*	HEALTH COMPLIANCE %
ADWG VALUE		++				≤ 5
TARGET		100% FREE				100%
Pinnaroo IRP	64	100	0.6	1.5	1.1	100
Port MacDonnell	105	98.1	0.5	2.2	0.9	100
Quorn	52	100	0.4	1.6	1.1	100
Renmark WTP	216	99.1	<0.1	2.7	0.9	100
Robe IRP	65	100	0.2	1.5	0.8	100
Summit WTP	529	100	N/A	N/A	N/A	-
Swan Reach Town WTP	64	100	0.1	1.9	0.9	100
Swan Reach WTP	474	100	N/A	N/A	N/A	-
Tailem Bend WTP	306	100	N/A	N/A	N/A	-
Tarpeena IRP	61	100	0.5	1.8	1.0	100
Waikerie WTP	75	100	<0.1	2.0	0.9	100
Warooka	52	100	0.5	1.5	1.0	100
Wilmington	52	100	<0.1	1.6	0.6	100
Woolpunda	77	100	N/A	N/A	N/A	-

Notes: # Chlorinated systems only. N/A: Not applicable.

++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.

TABLE 4 Continued

SYSTEM	CHLORINE RESIDUAL – TOTAL [mg/L]**				TOTAL DISSOLVED SOLIDS [mg/L]			
	MIN	MAX	AVE*	HEALTH COMPLIANCE %	MIN	MAX	AVE*	HEALTH COMPLIANCE %
ADWG VALUE				≤ 5				≤600
TARGET				100%				
Barmera WTP	N/A	N/A	N/A	-	140	290	224	100
Barossa WTP	N/A	N/A	N/A	-	310	480	378	100
Beachport IRP	N/A	N/A	N/A	-	670	670	670	0
Berri WTP	N/A	N/A	N/A	-	130	240	213	100
Blanchetown WTP	N/A	N/A	N/A	-	130	390	280	100
Bordertown	N/A	N/A	N/A	-	480	550	505	100
Cadell WTP	N/A	N/A	N/A	-	130	270	218	100
Coffin Bay	N/A	N/A	N/A	-	380	430	410	100
Cowirra WTP	N/A	N/A	N/A	-	150	330	240	100
Elliston	N/A	N/A	N/A	-	630	820	685	0
Eyre South	N/A	N/A	N/A	-	520	560	546	100
Eyre South/Morgan WTP	N/A	N/A	N/A	-	380	490	443	100
Geranium	N/A	N/A	N/A	-	1400	1400	1400	0
Glossop WTP	N/A	N/A	N/A	-	120	240	191	100
Happy Valley WTP	N/A	N/A	N/A	-	230	280	255	100
Hawker Desalination WTP	N/A	N/A	N/A	-	400	460	427	100
Kalangadoo IRP	N/A	N/A	N/A	-	520	560	545	100
Kanmantoo WTP	N/A	N/A	N/A	-	150	290	228	100
Kingston SE IRP	N/A	N/A	N/A	-	840	970	910	0
Lameroo IRP	N/A	N/A	N/A	-	940	990	963	0
Leigh Creek WTP	N/A	N/A	N/A	-	47	54	50	100
Loxton WTP	2.5	4.4	3.5	100	130	320	208	100

SYSTEM	CHLORINE RESIDUAL – TOTAL [mg/L]**				TOTAL DISSOLVED SOLIDS [mg/L]			
	MIN	MAX	AVE*	HEALTH COMPLIANCE %	MIN	MAX	AVE*	HEALTH COMPLIANCE %
ADWG VALUE	≤ 5				≤600			
TARGET	100%							
Lucindale IRP	N/A	N/A	N/A	-	800	840	823	0
Mannum WTP	N/A	N/A	N/A	-	150	310	233	100
Melrose	N/A	N/A	N/A	-	1400	1500	1425	0
Middle River WTP	N/A	N/A	N/A	-	300	520	420	100
Millicent	N/A	N/A	N/A	-	580	630	610	25.0
Moorook WTP	N/A	N/A	N/A	-	170	290	228	100
Morgan / Swan Reach WTP	<0.1	3.8	2.6	100	160	310	247	100
Morgan WTP	<0.1	3.9	2.2	100	120	370	254	100
Mt Burr	N/A	N/A	N/A	-	440	450	443	100
Mt Compass	N/A	N/A	N/A	-	240	260	249	100
Mt Gambier	N/A	N/A	N/A	-	340	360	354	100
Mt Pleasant WTP	N/A	N/A	N/A	-	120	310	226	100
Murray Bridge WTP	N/A	N/A	N/A	-	170	340	255	100
Mypolonga WTP	N/A	N/A	N/A	-	140	320	238	100
Myponga WTP	N/A	N/A	N/A	-	320	440	364	100
Nangwarry	N/A	N/A	N/A	-	580	630	603	50.0
Naracoorte	N/A	N/A	N/A	-	1200	1300	1250	0
Orroroo	N/A	N/A	N/A	-	1900	2000	1950	0
Padthaway	N/A	N/A	N/A	-	1500	1600	1525	0
Palmer WTP	N/A	N/A	N/A	-	130	300	220	100
Parachilna	N/A	N/A	N/A	-	810	870	840	0
Parilla IRP	N/A	N/A	N/A	-	630	640	635	0
Penneshaw WTP	N/A	N/A	N/A	-	140	220	178	100
Penola IRP	N/A	N/A	N/A	-	640	640	640	0
Pinnaroo IRP	N/A	N/A	N/A	-	690	750	720	0
Port MacDonnell	N/A	N/A	N/A	-	680	700	690	0
Quorn	N/A	N/A	N/A	-	1200	1200	1200	0
Renmark WTP	N/A	N/A	N/A	-	130	270	186	100
Robe IRP	N/A	N/A	N/A	-	750	820	785	0
Summit WTP	0.2	4.6	2.8	100	150	360	255	100
Swan Reach Town WTP	N/A	N/A	N/A	-	150	280	230	100
Swan Reach WTP	0.7	4.0	3.0	100	130	440	255	100
Tailem Bend WTP	<0.1	4.7	2.1	100	160	370	259	100
Tarpeena IRP	N/A	N/A	N/A	-	670	690	685	0
Waikerie WTP	N/A	N/A	N/A	-	130	310	220	100
Warooka	N/A	N/A	N/A	-	740	760	748	0
Wilmington	N/A	N/A	N/A	-	270	310	288	100
Woolpunda	<0.1	3.1	1.8	100	130	320	220	100

Notes: ** Chloraminated systems only. N/A: Not applicable.

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

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	0.41	0.19	100
Barossa WTP	<1	2	1	100	<0.1	2.5	0.19	100
Beachport IRP	<1	<1	<1	100	<0.1	0.13	<0.1	100
Berri WTP	<1	2	<1	100	<0.1	3.7	0.30	100
Blanchetown WTP	<1	<1	<1	100	0.11	0.38	0.19	100
Bordertown	<1	<1	<1	100	<0.1	0.43	<0.1	100
Cadell WTP	<1	<1	<1	100	<0.1	0.15	0.10	100
Coffin Bay	<1	<1	<1	100	<0.1	0.14	<0.1	100
Cowirra WTP	<1	<1	<1	100	<0.1	0.19	<0.1	100
Elliston	<1	<1	<1	100	<0.1	0.11	<0.1	100
Eyre South	<1	<1	<1	100	<0.1	0.47	<0.1	100
Eyre South/Morgan WTP	<1	<1	<1	100	<0.1	1.4	0.12	100
Geranium	<1	<1	<1	100	<0.1	0.18	<0.1	100
Glossop WTP	<1	<1	<1	100	<0.1	0.24	0.12	100
Happy Valley WTP	<1	<1	<1	100	<0.1	1.1	0.15	100
Hawker Desalination WTP	<1	<1	<1	100	<0.1	0.53	0.10	100
Kalangadoo IRP	<1	<1	<1	100	<0.1	0.46	0.14	100
Kanmantoo WTP	<1	<1	<1	100	<0.1	2.4	0.38	100
Kingston SE IRP	<1	<1	<1	100	<0.1	0.12	<0.1	100
Lameroo IRP	<1	<1	<1	100	<0.1	0.17	<0.1	100
Leigh Creek WTP	<1	<1	<1	100	<0.1	0.18	<0.1	100
Loxton WTP	<1	3	2	100	<0.1	0.16	<0.1	100
Lucindale IRP	<1	<1	<1	100	<0.1	0.21	<0.1	100
Mannum WTP	<1	<1	<1	100	<0.1	0.31	0.13	100
Melrose	<1	<1	<1	100	<0.1	0.20	<0.1	100
Middle River WTP	<1	<1	<1	100	<0.1	0.36	0.14	100
Millicent	<1	<1	<1	100	<0.1	0.58	0.14	100
Moorook WTP	<1	2	<1	100	<0.1	0.24	0.15	100
Morgan / Swan Reach WTP	<1	4	1	100	<0.1	7.4	0.28	98.7
Morgan WTP	<1	7	2	100	<0.1	1.0	0.13	100
Mt Burr	<1	<1	<1	100	<0.1	0.46	0.10	100
Mt Compass	<1	<1	<1	100	<0.1	0.39	0.14	100
Mt Gambier	<1	<1	<1	100	<0.1	0.33	0.14	100
Mt Pleasant WTP	<1	4	1	100	<0.1	0.43	0.10	100
Murray Bridge WTP	<1	<1	<1	100	<0.1	3.9	0.23	100
Mypolonga WTP	<1	<1	<1	100	<0.1	0.23	<0.1	100
Myponga WTP	<1	3	1	100	<0.1	1.5	0.16	100
Nangwarry	<1	<1	<1	100	<0.1	0.16	<0.1	100
Naracoorte	<1	<1	<1	100	<0.1	2.5	0.37	100
Orroroo	<1	<1	<1	100	<0.1	0.31	0.10	100
Padthaway	<1	<1	<1	100	<0.1	0.37	0.17	100
Palmer WTP	<1	<1	<1	100	<0.1	1.6	0.15	100
Parachilna	<1	<1	<1	100	<0.1	0.20	0.10	100
Parilla IRP	<1	<1	<1	100	<0.1	0.20	<0.1	100
Penneshaw WTP	<1	<1	<1	100	<0.1	0.37	<0.1	100
Penola IRP	<1	<1	<1	100	<0.1	0.17	<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								
Pinnaroo IRP	<1	<1	<1	100	<0.1	0.21	<0.1	100
Port MacDonnell	<1	<1	<1	100	<0.1	0.53	0.16	100
Quorn	<1	<1	<1	100	<0.1	0.12	<0.1	100
Renmark WTP	<1	2	<1	100	<0.1	4.6	0.21	100
Robe IRP	<1	<1	<1	100	<0.1	0.26	<0.1	100
Summit WTP	<1	5	1	100	<0.1	4.9	0.13	100
Swan Reach Town WTP	<1	<1	<1	100	<0.1	0.17	0.10	100
Swan Reach WTP	<1	4	2	100	<0.1	1.0	0.11	100
Tailem Bend WTP	<1	3	1	100	<0.1	0.44	0.12	100
Tarpeena IRP	<1	<1	<1	100	<0.1	0.34	<0.1	100
Waikerie WTP	<1	2	1	100	0.11	0.37	0.19	100
Warooka	<1	<1	<1	100	<0.1	0.20	<0.1	100
Wilmington	<1	<1	<1	100	<0.1	0.46	0.17	100
Woolpunda	1	6	3	100	0.10	0.72	0.22	100

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

TABLE 4 Continued

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								100%
Barmera WTP	7.2	7.8	7.5	100	50	228	145	100
Barossa WTP	7.0	9.7	7.6	91.5	41	331	207	73.9
Beachport IRP	7.6	8.0	7.8	100	33	33	33	100
Berri WTP	7.2	7.8	7.5	100	45	198	124	100
Blanchetown WTP	7.3	7.9	7.6	100	56	282	174	84.6
Bordertown	7.1	7.5	7.3	100	11	11	11	100
Cadell WTP	7.4	8.4	7.7	100	34	283	153	92.3
Coffin Bay	7.6	7.9	7.8	100	13	13	13	100
Cowirra WTP	7.3	8.8	8.0	92.3	102	248	163	100
Elliston	7.1	7.8	7.5	100	18	18	18	100
Eyre South	7.1	7.9	7.5	100	10	26	19	100
Eyre South/Morgan WTP	7.2	8.2	7.8	100	29	350	155	88.9
Geranium	6.9	7.2	7.1	100	6	6	6	100
Glossop WTP	7.3	7.9	7.6	100	64	265	169	84.6
Happy Valley WTP	7.1	8.6	7.5	96.0	135	244	201	100
Hawker Desalination WTP	8.0	8.2	8.1	100	9	9	9	100
Kalangadoo IRP	7.2	7.8	7.5	100	40	40	40	100
Kanmantoo WTP	7.5	7.9	7.7	100	63	217	144	100
Kingston SE IRP	7.4	7.9	7.7	100	38	38	38	100
Lameroo IRP	7.6	7.9	7.8	100	26	26	26	100
Leigh Creek WTP	6.9	7.6	7.3	100	<4	<4	<4	100
Loxton WTP	8.2	9.1	8.8	21.6	N/A	N/A	N/A	-
Lucindale IRP	7.6	8.0	7.8	100	110	110	110	100
Mannum WTP	7.1	8.0	7.5	100	48	200	115	100

SYSTEM	PH [pH Units]				TRIALOMETHANES – TOTAL [$\mu\text{g/L}$]			
	MIN	MAX	AVE*	AESTHETIC COMPLIANCE %	MIN	MAX	AVE*	HEALTH COMPLIANCE %
ADWG VALUE	6.5-8.5				≤ 250			
TARGET	100%				100%			
Melrose	7.3	7.7	7.5	100	14	14	14	100
Middle River WTP	7.1	7.5	7.3	100	43	304	155	92.3
Millicent	7.4	7.9	7.7	100	N/A	N/A	N/A	-
Moorook WTP	7.4	8.5	7.9	100	58	241	158	100
Morgan / Swan Reach WTP	8.2	9.5	9.0	5.4	N/A	N/A	N/A	-
Morgan WTP	6.9	9.5	8.7	18.3	66	231	141	100
Mt Burr	7.6	8.0	7.9	100	10	10	10	100
Mt Compass	6.9	7.8	7.6	100	4	4	4	100
Mt Gambier	8.1	8.4	8.2	100	29	36	33	100
Mt Pleasant WTP	7.1	7.9	7.5	100	44	328	174	85.7
Murray Bridge WTP	7.2	8.5	7.6	100	51	289	170	93.8
Mypolonga WTP	7.1	7.9	7.5	100	77	266	175	88.5
Myponga WTP	7.0	8.0	7.4	100	111	321	221	76.1
Nangwarry	7.4	7.9	7.7	100	19	19	19	100
Naracoorte	7.7	8.0	7.9	100	174	208	191	100
Orroroo	7.4	7.9	7.6	100	4	4	4	100
Padthaway	7.4	8.1	7.7	100	11	11	11	100
Palmer WTP	7.1	7.6	7.4	100	68	236	141	100
Parachilna	7.9	8.2	8.1	100	<4	<4	<4	100
Parilla IRP	7.6	7.9	7.7	100	18	18	18	100
Penneshaw WTP	7.7	8.2	8.1	100	23	23	23	100
Penola IRP	7.4	7.9	7.7	100	51	51	51	100
Pinnaroo IRP	7.4	7.9	7.6	100	21	21	21	100
Port MacDonnell	8.2	8.4	8.3	100	89	89	89	100
Quorn	7.2	7.9	7.4	100	8	8	8	100
Renmark WTP	7.2	9.2	7.8	83.0	34	340	159	89.7
Robe IRP	7.7	8.1	7.9	100	49	49	49	100
Summit WTP	8.1	9.2	8.7	19.2	N/A	N/A	N/A	-
Swan Reach Town WTP	7.3	7.8	7.6	100	64	241	149	100
Swan Reach WTP	7.6	9.5	8.9	7.5	N/A	N/A	N/A	-
Tallem Bend WTP	7.5	9.6	8.7	34.3	N/A	N/A	N/A	-
Tarpeena IRP	7.6	8.0	7.8	100	57	57	57	100
Waikerie WTP	7.2	8.0	7.6	100	56	220	150	100
Warooka	7.4	7.9	7.6	100	34	34	34	100
Wilmington	6.1	7.8	6.7	68.0	31	31	31	100
Woolpunda	7.7	9.4	8.7	26.9	N/A	N/A	N/A	-

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

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	100%				100%			
Barmera WTP	0.74	0.98	0.88	100	0.0034	0.0677	0.0171	100
Barossa WTP	0.22	0.95	0.74	100	0.0039	0.1328	0.0292	100

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				100%				
Beachport IRP	0.24	0.27	0.25	100	<0.0005	0.0100	0.0038	100
Berri WTP	0.76	0.92	0.86	100	0.0308	0.1639	0.0976	100
Blanchetown WTP	<0.1	0.13	0.10	100	0.0111	0.0151	0.0133	100
Bordertown	0.32	0.33	0.33	100	<0.0005	0.2321	0.0106	100
Cadell WTP	<0.1	0.15	0.10	100	0.0029	0.0073	0.0043	100
Coffin Bay	0.9	1.2	1.1	100	<0.0005	0.0018	0.0010	100
Cowirra WTP	<0.1	0.12	<0.1	100	0.0076	0.0131	0.0103	100
Elliston	0.54	0.73	0.60	100	<0.0005	<0.0005	<0.0005	100
Eyre South	0.17	0.47	0.40	100	<0.0005	0.0026	0.0010	100
Eyre South/Morgan WTP	0.56	0.73	0.66	100	0.0014	0.0078	0.0041	100
Geranium	0.76	1.1	0.97	100	0.0049	0.0156	0.0112	100
Glossop WTP	<0.1	0.11	<0.1	100	0.0150	0.0258	0.0205	100
Happy Valley WTP	0.18	0.88	0.61	100	0.0076	0.0159	0.0135	100
Hawker Desalination WTP	0.1	0.12	0.11	100	0.0007	0.0089	0.0035	100
Kalangadoo IRP	0.12	0.13	0.13	100	0.0054	0.1141	0.0266	100
Kanmantoo WTP	<0.1	0.13	<0.1	100	0.0019	0.0660	0.0213	100
Kingston SE IRP	0.31	0.34	0.33	100	0.0011	0.0111	0.0043	100
Lameroo IRP	0.53	0.65	0.60	100	0.0173	0.0312	0.0207	100
Leigh Creek WTP	<0.1	<0.1	<0.1	100	0.0036	0.0224	0.0123	100
Loxton WTP	0.85	0.89	0.87	100	<0.0005	0.0069	0.0035	100
Lucindale IRP	0.31	0.35	0.33	100	<0.0005	0.0128	0.0065	100
Mannum WTP	0.9	1.0	0.96	100	0.0112	0.0455	0.0282	100
Melrose	1.0	1.1	1.1	100	0.0019	0.0050	0.0035	100
Middle River WTP	<0.1	<0.1	<0.1	100	0.0082	0.0530	0.0301	100
Millicent	1.0	1.1	1.0	100	0.0140	0.0839	0.0453	100
Moorook WTP	<0.1	0.14	<0.1	100	0.0073	0.0211	0.0129	100
Morgan / Swan Reach WTP	0.82	1.1	0.91	100	0.0026	0.6102	0.0488	93.8
Morgan WTP	0.7	1.1	0.90	100	<0.0005	0.0588	0.0121	100
Mt Burr	0.24	0.29	0.27	100	0.0011	0.0293	0.0097	100
Mt Compass	0.24	0.28	0.26	100	0.0020	0.0051	0.0033	100
Mt Gambier	0.56	0.88	0.78	100	<0.0005	0.0090	0.0011	100
Mt Pleasant WTP	0.72	0.96	0.84	100	0.0011	0.0195	0.0045	100
Murray Bridge WTP	0.85	0.96	0.91	100	0.0034	0.0065	0.0053	100
Mypolonga WTP	<0.1	0.14	<0.1	100	0.0104	0.0210	0.0147	100
Myponga WTP	<0.1	0.85	0.50	100	0.0136	0.2342	0.0916	100
Nangwarry	0.1	0.14	0.12	100	<0.0005	0.0014	0.0007	100
Naracoorte	1.2	1.4	1.3	100	0.0699	0.1672	0.1169	100
Orroroo	1.3	1.4	1.3	100	0.0039	0.0203	0.0107	100
Padthaway	0.1	0.13	0.12	100	0.0216	0.0450	0.0282	100
Palmer WTP	<0.1	<0.1	<0.1	100	0.0141	0.0834	0.0383	100
Parachilna	0.62	0.69	0.65	100	<0.0005	0.0089	0.0034	100
Parilla IRP	0.46	0.56	0.49	100	<0.0005	0.0154	0.0093	100
Penneshaw WTP	<0.1	<0.1	<0.1	100	<0.0005	0.0012	0.0007	100
Penola IRP	0.17	0.21	0.19	100	0.0023	0.1119	0.0239	100
Pinnaroo IRP	0.67	0.68	0.68	100	<0.0005	0.0198	0.0094	100
Port MacDonnell	0.76	0.85	0.81	100	0.0032	0.0064	0.0051	100
Quorn	0.54	0.65	0.59	100	<0.0005	0.0009	0.0005	100

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	100%							
Renmark WTP	0.83	0.92	0.88	100	0.0028	0.2168	0.0274	100
Robe IRP	0.3	0.32	0.31	100	0.0018	0.0128	0.0059	100
Summit WTP	0.85	0.99	0.91	100	<0.0005	0.0208	0.0049	100
Swan Reach Town WTP	<0.1	0.12	0.10	100	0.0174	0.0267	0.0210	100
Swan Reach WTP	0.72	1.0	0.90	100	<0.0005	0.0071	0.0032	100
Tailem Bend WTP	0.86	1.0	0.92	100	0.0010	0.0301	0.0073	100
Tarpeena IRP	0.19	0.21	0.20	100	0.0043	0.0480	0.0108	100
Waikerie WTP	0.78	0.91	0.88	100	0.0194	0.0456	0.0341	100
Warooka	0.93	1.1	1.0	100	<0.0005	0.0030	0.0014	100
Wilmington	0.16	0.16	0.16	100	0.0139	0.0369	0.0227	100
Woolpunda	<0.1	0.12	<0.1	100	<0.0005	0.0066	0.0030	100

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

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	100%								
Baramba WTP	0.0028	0.0133	0.0066	100	100	36	83	62	100
Barossa WTP	0.0007	0.0054	0.0026	100	100	95	168	129	100
Beachport IRP	<0.0001	0.0004	0.0002	100	100	261	298	275	0
Berri WTP	0.0022	0.0055	0.0038	100	100	34	75	62	100
Blanchetown WTP	0.0007	0.0037	0.0018	100	100	34	97	76	100
Bordertown	<0.0001	<0.0001	<0.0001	100	100	243	280	256	0
Cadell WTP	0.0005	0.0018	0.0010	100	100	37	82	62	100
Coffin Bay	<0.0001	0.0003	0.0002	100	100	213	241	228	0
Cowirra WTP	0.0004	0.0012	0.0007	100	100	47	101	72	100
Elliston	<0.0001	0.0003	0.0001	100	100	248	326	279	0
Eyre South	<0.0001	0.0004	0.0001	100	100	241	297	257	0
Eyre South/Morgan WTP	<0.0001	0.0016	0.0005	100	100	158	218	192	41.7
Geranium	<0.0001	0.0002	0.0001	100	100	548	562	557	0
Glossop WTP	0.0003	0.0030	0.0011	100	100	34	76	61	100
Happy Valley WTP	0.0003	0.0028	0.0009	100	100	91	108	99	100
Hawker Desalination WTP	0.0003	0.0004	0.0004	100	100	121	142	129	100
Kalangadoo IRP	0.0001	0.0004	0.0003	100	100	330	350	340	0
Kanmantoo WTP	0.0004	0.0011	0.0007	100	100	43	91	65	100
Kingston SE IRP	<0.0001	0.0002	0.0001	100	100	211	218	215	0
Lameroo IRP	0.0008	0.0014	0.0010	100	100	221	258	240	0
Leigh Creek WTP	<0.0001	0.0008	0.0005	100	100	3	3	3	100
Loxton WTP	0.0005	0.0026	0.0017	100	100	32	96	58	100
Lucindale IRP	<0.0001	<0.0001	<0.0001	100	100	303	308	305	0
Mannum WTP	0.0026	0.0045	0.0036	100	100	36	88	63	100
Melrose	<0.0001	<0.0001	<0.0001	100	100	334	386	351	0
Middle River WTP	0.0010	0.0032	0.0025	100	100	34	72	53	100
Millicent	0.0007	0.0024	0.0016	100	100	336	364	352	0

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				100%					
Moorook WTP	0.0005	0.0018	0.0010	100	100	39	87	61	100
Morgan / Swan Reach WTP	0.0010	0.0098	0.0039	100	100	43	89	68	100
Morgan WTP	0.0007	0.0107	0.0035	100	100	32	102	70	100
Mt Burr	<0.0001	0.0002	0.0001	100	100	282	336	304	0
Mt Compass	0.0002	0.0004	0.0003	100	100	54	62	57	100
Mt Gambier	<0.0001	<0.0001	<0.0001	100	100	147	192	174	100
Mt Pleasant WTP	0.0001	0.0030	0.0010	100	100	35	97	69	100
Murray Bridge WTP	0.0010	0.0049	0.0028	100	100	45	104	71	100
Mypolonga WTP	0.0004	0.0029	0.0012	100	100	41	98	66	100
Myponga WTP	0.0009	0.0056	0.0034	100	100	93	141	105	100
Nangwarry	<0.0001	<0.0001	<0.0001	100	100	375	416	387	0
Naracoorte	0.0070	0.0229	0.0168	100	100	307	350	331	0
Orroroo	0.0002	0.0005	0.0003	100	100	612	689	663	0
Padthaway	0.0006	0.0011	0.0007	100	100	558	638	586	0
Palmer WTP	0.0015	0.0025	0.0020	100	100	38	88	62	100
Parachilna	<0.0001	0.0004	0.0002	100	100	304	319	311	0
Parilla IRP	0.0001	0.0003	0.0002	100	100	174	180	177	100
Penneshaw WTP	<0.0001	<0.0001	<0.0001	100	100	49	67	57	100
Penola IRP	0.0002	0.0006	0.0004	100	100	297	327	310	0
Pinnaroo IRP	<0.0001	0.0002	0.0001	100	100	241	260	247	0
Port MacDonnell	0.0004	0.0007	0.0006	100	100	23	29	25	100
Quorn	<0.0001	<0.0001	<0.0001	100	100	476	506	493	0
Renmark WTP	0.0019	0.0457	0.0083	100	100	36	78	54	100
Robe IRP	<0.0001	<0.0001	<0.0001	100	100	111	130	118	100
Summit WTP	0.0023	0.0233	0.0059	100	100	44	120	78	100
Swan Reach Town WTP	0.0008	0.0060	0.0024	100	100	40	100	68	100
Swan Reach WTP	0.0008	0.0067	0.0031	100	100	40	117	76	100
Tailem Bend WTP	0.0003	0.0046	0.0017	100	100	37	105	74	100
Tarpeena IRP	0.0003	0.0005	0.0004	100	100	383	400	392	0
Waikerie WTP	0.0048	0.0085	0.0064	100	100	37	88	66	100
Warooka	<0.0001	<0.0001	<0.0001	100	100	318	331	326	0
Wilmington	0.0007	0.0012	0.0010	100	100	102	113	109	100
Woolpunda	0.0006	0.0012	0.0008	100	100	31	84	61	100

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

