

2019-20 South Australian Water Corporation **Annual Report**

FOR THE YEAR ENDING 30 JUNE 2020



Government of
South Australia



SA Water



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28 September 2020

Letter of Transmittal

28 September 2020

The Honourable David Speirs
Minister for Environment and Water

Dear Minister

On behalf of the Board of SA Water, I am pleased to present the Corporation's Annual Report for the financial year ending 30 June 2020.

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

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



Andrew Fletcher AO
Chair of the Board

Contents

A message from the Chair	5	Effective governance	56
A message from the Chief Executive	6	Legislation	56
		Key regulators	56
About SA Water	8	The Board	56
Our vision	8	Directors' interests and benefits	56
Our values	8	Board committees	56
Our organisation	8	Organisation structure	57
Our strategy	10	Financial performance	59
		Financial performance summary	59
Our services	12	Contributions to government	60
Overview of our networks and assets	12	Capital Expenditure	60
Map of our supply areas	13	Consultants	61
Map of our reservoirs, water treatment plants, borefields and major pipelines	14		
Map of our reservoirs, water treatment plants and supply areas, metropolitan Adelaide	15	Supplementary reporting items	62
Map of our reservoirs, water treatment plants and supply areas, outer metro	16	Fraud	62
Map of our wastewater treatment plants	17	Strategies implemented to control and prevent fraud	62
		Public interest disclosure	62
		Summary of complaints	62
		Directions	63
Year in review	18	Appendices	73
Adapting to a changing world	18	Audited financial statements	74
Getting the basics right every time	22	Drinking water quality data	148
Working together	30	United Nations Communication on Progress	178
Leading the way	38		
Capable and committed team	47		
Keeping it simple	49		
Water quality	50		

A message from the Chair



In a time of great change and challenge in our community, country and around the world, water services remain essential. This year everyone's ability to adapt has been tested and the Board and I are proud to report that the Corporation's efforts to maintain services and support customers through bushfires and a global pandemic has been exceptional, thanks to the commitment and dedication of our people.

A reliable supply of safe clean drinking water and dependable sewerage services are fundamental to our health, public amenity and our economy. In addition to delivering our services and investing in new and upgraded infrastructure, we have also fulfilled responsibilities in the State Emergency Centre during the summer's bushfires and supported the South Australian Government response to COVID-19. A key focus this year has also been to implement a heightened cyber-attack protection and resilience capability to combat the ever increasing threat arising in this area.

Throughout, the safety and wellbeing of our people, customers and the community remained a priority. The safety culture in SA Water continues to be strong and it is pleasing to see a downward trend in the all injury frequency rate and high potential incident frequency rate.

Support for residential, business and commercial customers has been equally critical, with many feeling the impact of bushfires and the COVID-19 pandemic. The state government's announcement of a significant reduction to water prices from July 2020 will enable a lower cost of living with no reduction to levels of service. Both residential and business customers will benefit from lower water prices with 36,145 visitors using the savings estimator on the SA Water website in June 2020. This has been made possible in no small part by the efficiencies achieved by our people in improving work practices and exploiting new technologies together with the Corporation's very comprehensive submission to the Essential Services Commission of South Australia to assist them in preparing their final determinations.

Our focus on the wider contribution SA Water makes to our state has also been maintained. We have continued to invest in renewable energy generation as part of our commitment to sustainability and to reducing the cost to produce and deliver safe clean drinking water.

This year 150,000 solar photovoltaic panels were installed at sites across the state with effective forward planning ensuring this and other critical equipment were received ahead of schedule, mitigating any construction delays from the COVID-19 pandemic.

During the year, the Board commissioned an independent review and comparison of SA Water's water main management practices against global best practices, the findings of which have now been implemented and will lead to a further reduction in water main leak and break disruptions to the community.

SA Water has played a pivotal role in implementing the government's reservoir opening policy and now manages the critical operations to support this initiative.

The Corporation is also stepping up its commitment to reconciliation, with a new stretch Reconciliation Action Plan developed for 2020-23.

Recognising the need to respond to economic, social and technological change, the Board has also started work on a new business strategy. This will ensure we continue to adapt and prepare for the future and meet the expectations of our customers. I look forward to sharing our vision and direction in the coming year.

Building on our proud history, we remain committed to delivering services that underpin a strong future for our business, our customers and the state of South Australia.

I would like to acknowledge the efforts of my fellow Board members and our new Chief Executive, David Ryan, for their leadership, commitment and dedication to the Corporation.

A stylized, handwritten signature in black ink, appearing to read 'A Fletcher'.

Andrew Fletcher AO
Chair of the Board

A message from the Chief Executive



Continuity of essential water and wastewater services to our customers through a period of significant change has been our focus throughout the year.

At the end of the 2016-20 regulatory period, our team delivered on commitments to customers, with a consistently strong performance meeting our service standards and the efficiency targets set for us by the Essential Services Commission of South Australia.

Our Plan 2020-24 was submitted to the Essential Services Commission of South Australia in early November 2019 and during the next regulatory period we are proud to deliver customer bill savings, which is great news for our customers. The large and varied investment program outlined in the plan will result in upgrades to water and sewerage mains, expansion of our smart networks, building new seawater desalination plants to provide water security, and upgrading Mount Bold Reservoir.

Through this program of works, we will continue to maintain and improve services for our customers while pursuing efficiency in our delivery and operations.

This financial year, 40 gigalitres of water for metropolitan Adelaide was supplied from the Adelaide Desalination Plant completing stage one of the Water for Fodder program funded by the federal government. The plant's operation model ensured it easily met the required demand with a seamless supply experience for our metropolitan customers.

An increase in water sales through a low rain fall summer, reduced electricity costs, operational efficiencies, and savings through reduced interest rates contributed to our strong financial performance this year, delivering a return above budget.

The opening of South Para Reservoir Reserve in late 2019 brought a new outdoor adventure offering to the southern Barossa region with more

than 5,200 visitors enjoying the rugged landscape in the first six months. Around 33,000 people visited Myponga Reservoir Reserve in 2019-20, with shore-based fishing introduced in December 2019. Through the cross-government taskforce, we continue to work closely with the community and government agencies on this priority initiative.

Investment in technology through smart water and wastewater networks helps with early leak detection and reduces disruption for customers, and our newly completed wastewater treatment plant at Murray Bridge received a national sustainability award recognising excellence in all aspects of the project and its cultural, social, environmental and economic benefits.

Customers are embracing digital service options with eBilling numbers continuing to increase with 154,054 properties registered to receive eBills, up from 100,847 in 2018-19, and WebChat introduced for quick, online customer interactions.

With teams based right across the state, our people are part of the communities they serve, with strong connections in regional and remote South Australia. Our community involvement continues to build trusted partnerships. They include using recycled water to create an AFL-standard oval at Amata in the Anangu Pitjantjatjara Yankunytjatjara Lands of far north South Australia.

A focus on diversity and inclusion continued and we made achievements in celebrating diversity of thought, experience and background among our people. This includes the rate of Aboriginal and Torres Strait Islander employment at 2.6 per cent, and two internal network groups supporting women and LGBTIQ+ people in our workforce.

Using a harm-based approach, our safety focus continues with emphasis on preventing potential or actual life altering events so our people remain safe: everybody, every job, every day. This year our all injury frequency rate reduced by 30 per cent to 19.52, compared to 27.72 in 2018-19 and our high potential incident frequency rate reduced to 1.56, an improvement of more than 50 per cent on our 2018-19 result of 3.96. Safety and wellbeing are consistently featured in our team discussions, both what we are doing well and improvement opportunities.

Our annual Innovation and Excellence Awards recognised and celebrated the contributions of our people, from opening reservoir reserves and pursuing a zero cost energy future, through to building strong and respectful relationships with Aboriginal communities and improved management of environmental risks.

Our commitment as a participant in the United Nations Global Compact is reaffirmed as we continue to work towards delivering services and achieving positive outcomes for our community and the planet. As part of this commitment, we are a signatory to the Australian water industry's commitment to support the United Nations Sustainable Development Goals.

While during the COVID-19 pandemic there may be a greater element of uncertainty about the future, our people continue to innovate and adapt to proudly deliver the essential water and wastewater services 1.7 million South Australians rely upon.

40 gigalitres
of Water for Fodder was
supplied from the Adelaide
Desalination Plant

33,000
people visited Myponga
Reservoir Reserve

154,054
properties registered to
receive eBills



David Ryan
Chief Executive

About SA Water

Our vision

World class water services
for a better life.

Our values

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

Our organisation

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

As a statutory corporation we report to an independent Board and balance the delivery of services in a competitive market with our responsibility to provide a financial return to government.

We are included in the portfolio of the Minister for Environment and Water and work closely with a number of South Australian government agencies including:

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



Serving
South Australia for
164 years

Providing services
for more than
1.7 million
people

714,592
customer water
connections





Our strategy

Our business is influenced by local, national and global circumstances. Work has commenced on our next business strategy so we remain responsive to the changing needs and expectations of our customers and stakeholders, now and into the future.

We actively monitor both economic and social trends and engage with our stakeholders and customers to understand their needs. By anticipating future directions and changing values, we are best placed to deliver our vision of world class water services for a better life. Our strategy sets our path as we work towards this vision, guiding the decisions we make each day.

Getting the basics right every time

Customers expect us to get the basics right: the safety and availability of 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 great outcomes for them. We support the South Australian community and economy.

Capable and committed team

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

Keeping it simple

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



Our services

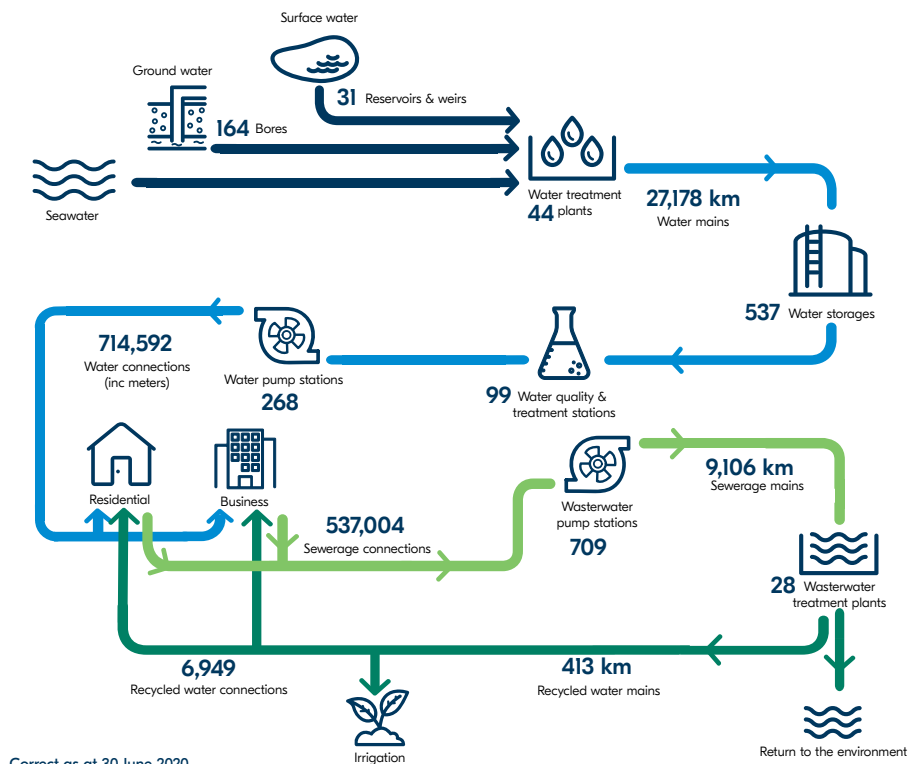
Each year we supply more than 230 billion litres of water to South Australians via our extensive and largely hidden pipes deep underground across our cities, suburbs and towns.

Every day we are providing essential services and as one of the most efficient water utilities in Australia, we are continually improving the way we do this for our customers, to keep prices as low and stable as possible over time. To deliver on our commitment to efficiency, we strive to make smart, long-term investments, and the best use of new technologies.

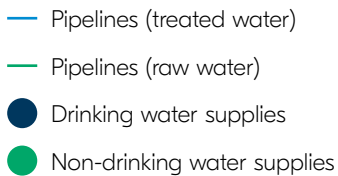
We remain focused on meeting our legal and regulatory responsibilities as well as what is most important to our customers.

Of Australia's water utilities, we have one of the longest water mains supply network at more than 27,000 kilometres. In addition, we manage more than 9,000 kilometres of sewerage mains and a 413 kilometre-long recycled water network.

Overview of our network and assets



Map of our supply areas



Map of our reservoirs, water treatment plants, borefields and major pipelines



Map of our reservoirs, water treatment plants and supply areas, metropolitan Adelaide

Water treatment plant supply areas

System name

Water treatment plant (WTP)

Barossa Metro
Barossa WTP

North Metro
Anstey Hill / Happy Valley / Barossa / Little Para WTPs / ADP

Anstey Hill Metro
Anstey Hill WTP

East Metro
Anstey Hill / Happy Valley WTPs / ADP

West Metro
Anstey Hill / Happy Valley / Hope Valley WTPs / ADP

Central Metro
Happy Valley WTP / ADP

South Metro
Happy Valley / Myponga WTPs / ADP

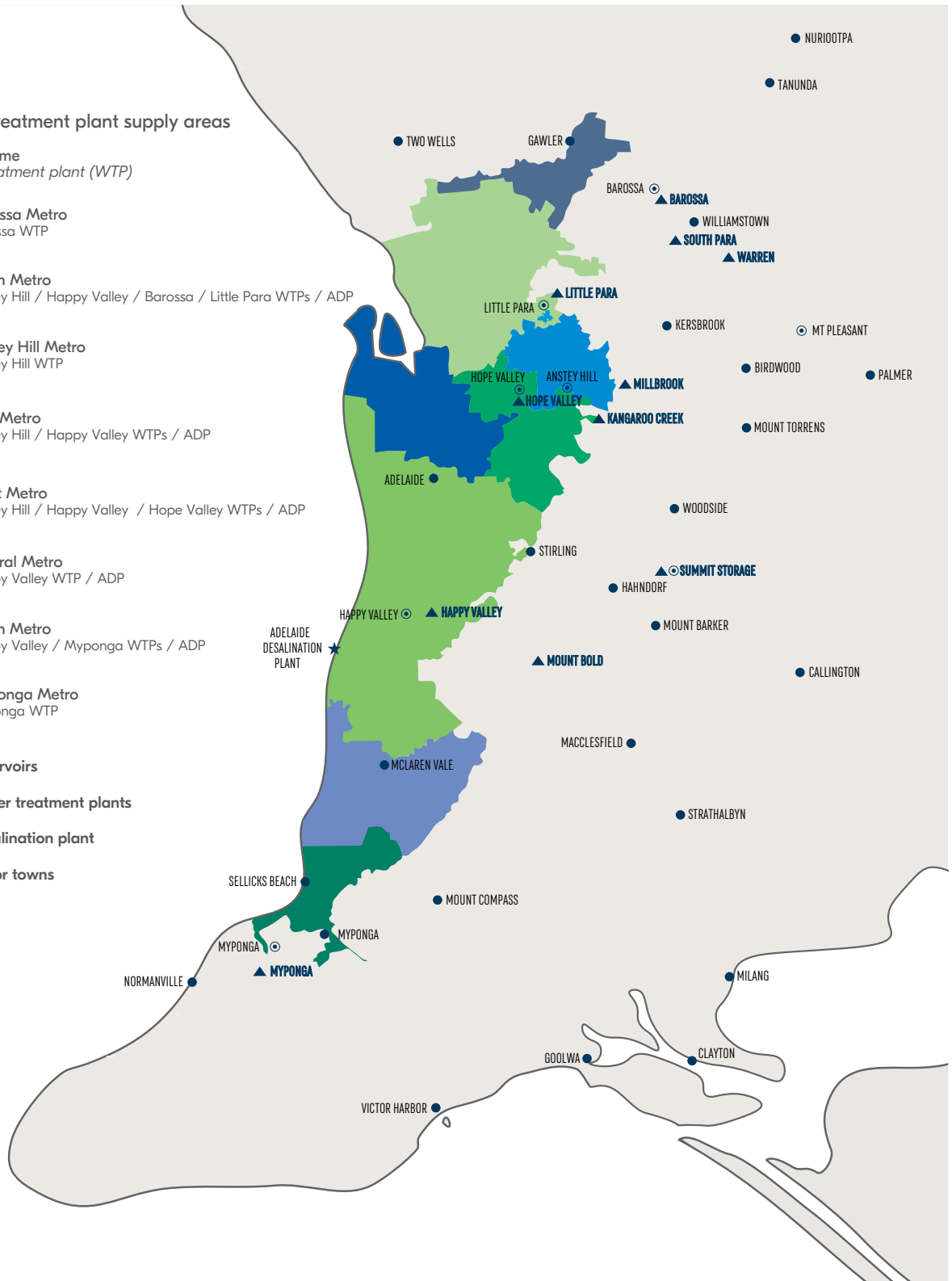
Myponga Metro
Myponga WTP

▲ Reservoirs

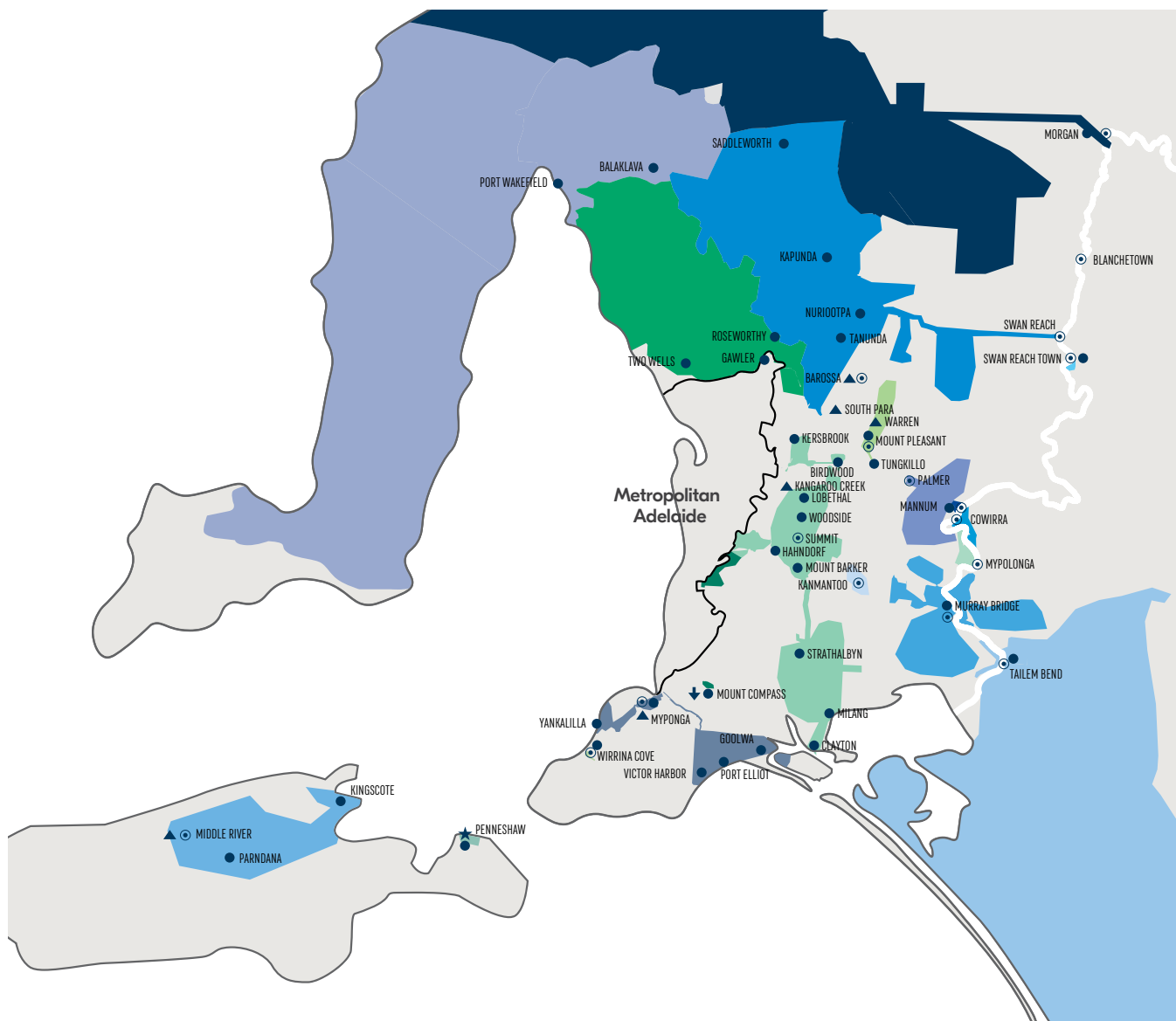
⊙ Water treatment plants

★ Desalination plant

● Major towns



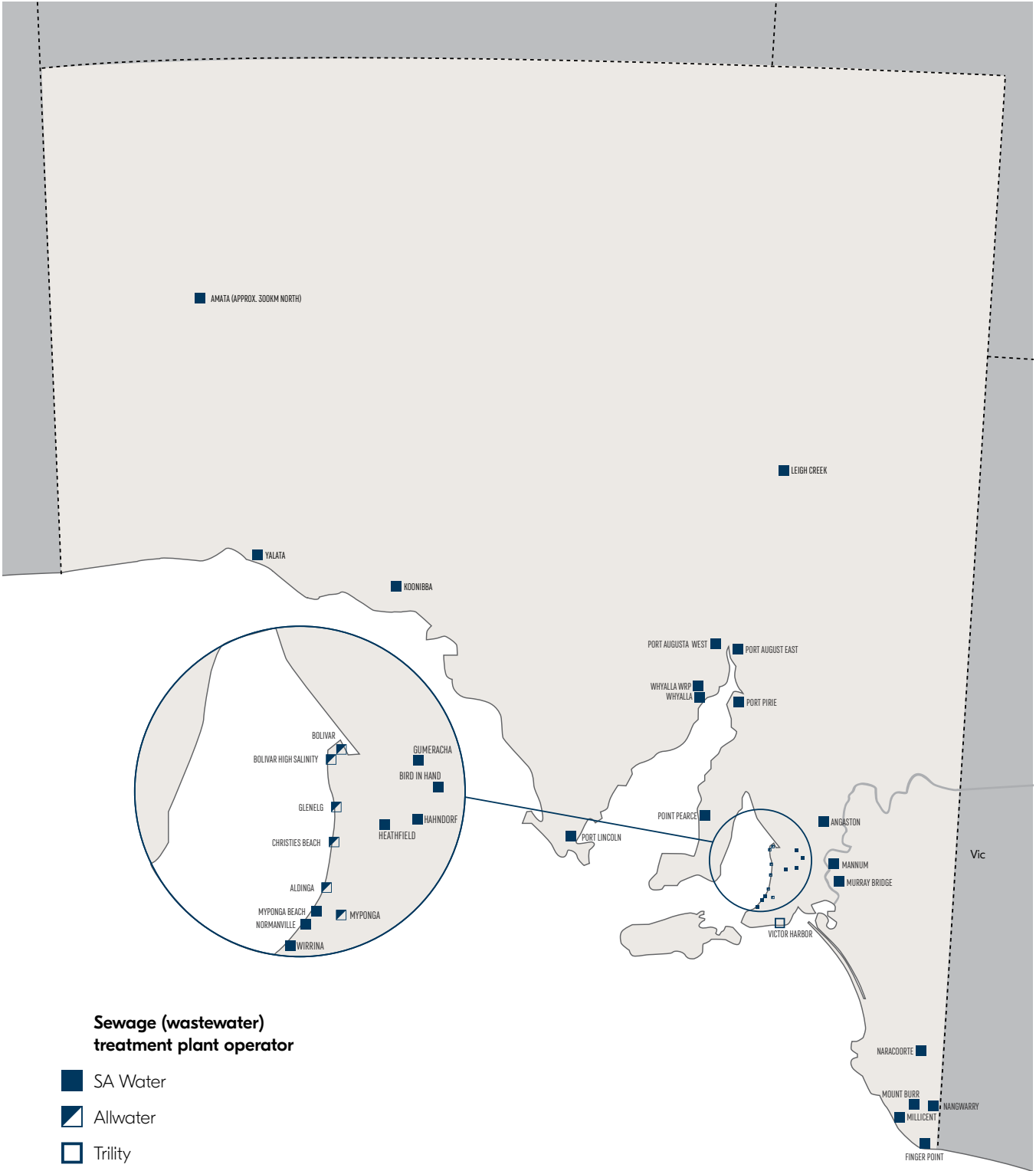
Map of our reservoirs, water treatment plants and supply areas, outer metro



Water treatment plant (WTP) supply areas

■ Morgan WTP	■ Cowirra WTP	■ Myponga WTP	↓ Borefields
■ Swan Reach WTP	■ Swan Reach Town WTP	■ Kanmantoo WTP	▲ Reservoirs
■ Mount Pleasant WTP	■ Mypolonga WTP	■ Mount Compass (bores)	○ Water treatment plants
■ Morgan-Swan Reach WTP	■ Murray Bridge WTP	■ Tailem Bend WTP	★ Desalination plant
■ Barossa WTP	■ Palmer WTP	■ Middle River WTP	● Major towns
■ Happy Valley WTP	■ Summit WTP	■ Penneshaw WTP	— Metro boundary
■ Mannum WTP	■ Wirrina WTP		

Map of our wastewater treatment plants





Year in review

Adapting to a changing world

Bushfire impacts and recovery

In December 2019 and January 2020 bushfires in the Adelaide Hills and on Kangaroo Island burnt through thousands of hectares of land significantly impacting communities as well as our catchments and some of our infrastructure, with our teams responding to keep supply going through management of the situation on the ground.

Customer support

With properties and homes destroyed and damaged by fires, our focus was to support and help customers impacted.

Rates and water use costs were waived for 12 months for customers who had properties destroyed in the Adelaide Hills and on Kangaroo Island.

Customers in the Adelaide Hills, Kangaroo Island, Maitland, Clarendon and Bunbury identified as being in the scar zone of fires, yet who did not lose houses, were given an eight week extension to pay their most recent bill.

In addition, these customers were granted a reduction on their water use where there was an increase due to firefighting efforts.

Customers who were outside the scar zone, yet still within impacted areas, who used additional water for fire prevention and to stop ash were able to contact us and request a reduction in their water use and this was applied as for those in the scar zone.

Adelaide Hills

The Cudlee Creek fire in the Adelaide Hills caused minor damage to the recycled water system pipework at Bird in Hand and also to electrical wiring associated with water tanks in the region.

Our response ensured customers had access to drinking water, including through our Quench Benches which were made available in Lobethal, Woodside and Oakbank both during and after the fire.

Working closely with the Country Fire Service and the Department of Primary Industries and Regions South Australia, we also provided water for firefighting and livestock.

Water from the Adelaide Hills catchments was managed to avoid poor water quality runoff entering our water treatment plants, including installation of sediment control structures within our reservoir reserves.

Our team collaborated with the Department for Environment and Water to engage with and help the community to prevent soil erosion and loss of seeds on their properties within the wider catchments.



Above: Land around the Lobethal Tank was burnt in the Cudlee Creek bushfire.

Left: The Quench Bench at the Lobethal Oval provided locals with ready access to drinking water.

Kangaroo Island

On Kangaroo Island, the Duncan and Ravine bushfires caused significant damage to the Middle River reservoir catchment and water treatment plant.

With the treatment plant damaged and temporarily inoperable, we put in place interim arrangements for continued supply in the Middle River System to 1,500 customers, including in Parndana and Kingscote. Changes included bringing water from the Penneshaw Desalination Plant and the mainland.

There was strong community support when we asked all Kangaroo Island residents and visitors to limit non-essential drinking water use and drinking water was made available to the community in both Parndana and Kingscote through water bladders and boxed water.

We worked closely with members of the Australian Defence Force (ADF) deployed to the Island to support the bushfire response and recovery. The ADF set up a mobile filtration plant which was used to fill contingency tanks at Kingscote. This mobile ADF plant was later moved to Penneshaw to help recover storage levels in the Penneshaw system.

The Middle River Water Treatment Plant was back running at full capacity within two weeks following restoration of electrical equipment, remote monitoring and network controls, plus communications systems.

Work to rebuild, repair and upgrade the damaged plant in May and June 2020 included:

- replacing the control room and perimeter buildings, which had been completely destroyed
- upgrading the main switchboard enabling it to be powered by a generator to ensure improved operation and security of water to our customers on the Island.



Clockwise from above:

Sediment barriers were set up in the Middle River catchment ahead of heavy rain.

Damage at the Middle River Water Treatment Plant.

The Middle River catchment was extensively burnt by the Ravine bushfire.

David Ryan, Mark Gobbie, Peter Bishop, Joe Cirillo and Colin Bell at the Parndana water collection point.



Delivering through COVID-19

Through the COVID-19 pandemic to date, we have continued delivery of services while maintaining the safety and wellbeing of our people and the community.

Everyone from our customer facing field-based teams, our laboratories, customer-engaging roles and people based in our shared offices, adapted to the challenge, ensuring the reliable and dependable supply of services, delivering for our customers and supporting each other.

With many of our residential and business customers experiencing a sudden change in circumstances when COVID-19 restrictions came into place from March 2020, we stepped up our support efforts.

Our focus was also on supporting partners and suppliers by driving economic activity. Capital work continued throughout, ensuring initiatives to improve our services progressed and our delivery partners and their supply chains were kept working.

Changing our payment terms to one business day following approval of an invoice also helped payments move as quickly as possible, contributing to the local economy.

In response to changes to access arrangements for remote Aboriginal communities, including the Anangu Pitjantjatjara Yankunytjatjara Lands, Maralinga Tjarutja Lands and communities on Aboriginal Lands Trust land, our team incorporated the new strict entry requirements into their operations to protect these communities while continuing to provide services to our remote location customers.

The majority of the Aboriginal communities we service were designated areas under the *Biosecurity Act 2015* requiring all travel to, and work undertaken in, these communities to meet the necessary requirements and approval from the relevant delegate.

Arrangements were put in place to maintain continuity of our critical functions. This included locating functions across multiple locations, rotating rosters and ensuring backup capabilities for key roles.

The impacts of the COVID-19 pandemic continue to be monitored for both our customers and our business and we have response plans in place.

Healthy sewers

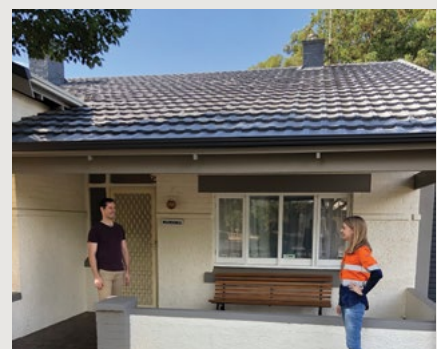
This year we shared healthy sewers messages to encourage customers to change their flushing behaviour and help protect both their internal plumbing and the mains sewerage system.

Putting anything other than the three Ps — pee, poo and (toilet) paper — down the toilet or sink can contribute to sewage overflows and has the potential to impact customers. Removing rubbish from the network to landfill adds hundreds of thousands of operational dollars each year.

This message was particularly relevant when impacts of the COVID-19 pandemic resulted in a shortage of toilet paper and some customers reached for non-flushable alternatives.

From March to April 2020, we recorded a 29 per cent increase in the number of sewer main blockages across South Australia, as more items like wet wipes and other toilet paper replacements were flushed down the toilet.

Our healthy sewers stories generated significant community interest reaching more than 1.1 million people in South Australia and around the country.



Top: Open air toolbox meetings kept teams connected while maintaining physical distance.

Middle: Signs used by our field workers explained the essential work underway to passers-by.

Bottom: Field teams adapted and supported physical distancing measures when interacting with customers.

Wastewater testing

A joint initiative between us and SA Health resulted in wastewater sampling established to help our state's public health team identify the extent of COVID-19 infection within the community.

This new way of monitoring for COVID-19 provided an additional tool for our public health clinicians to detect and manage spread of the virus.

By combining the collective knowledge of South Australia's water and public health experts we created in-house sewage virus detection techniques from sewage samples.

Wastewater sampling was undertaken at our Bolivar, Christies Beach, Glenelg, Port Lincoln, Angaston and Finger Point wastewater treatment plants, with plans for more in the future.

This work was part of a broader national initiative coordinated by Water Research Australia.

We are now a reference laboratory for testing of COVID-19 in wastewater samples from our interstate peers.

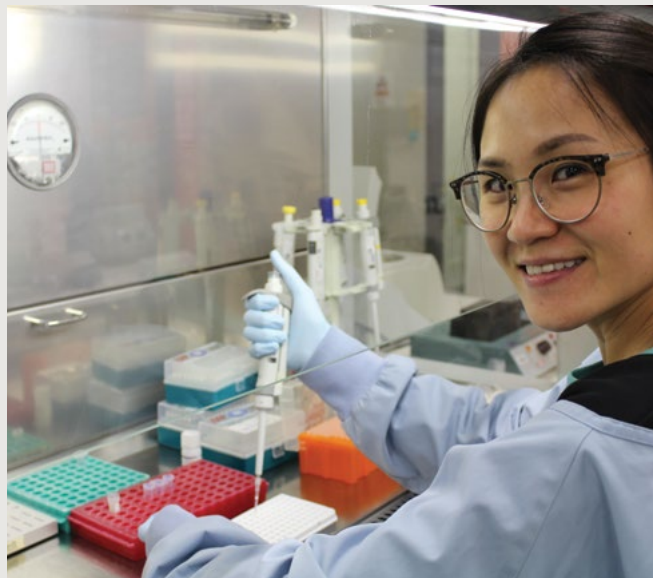
Biogas boost

Our Glenelg Wastewater Treatment Plant has historically been a strong performer in targeting power self-sufficiency.

In a good month, 275,000-300,000 cubic metres of biogas is generated onsite via digestion and in May 2020, this figure exceeded 355,200 cubic metres. This facilitated a site record of 654 megawatt hours which generated power to meet 89 per cent of the site's electrical demand.

Driving the May results were expired beer generated by oversupply created when the hospitality industry was closed during COVID-19 restrictions.

Its methane potential was harvested via anaerobic digestion as a fuel source for the site engines to power the plant and maximise autonomy from the electrical grid.



Above: Some of the unflushables found in our wastewater network, clockwise from top left, Normanville, Christies Beach and Bolivar.

Left: Our scientists turned their attention to testing for COVID-19 in wastewater samples.

Getting the basics right every time

Customers expect us to get the basics right so they can rely on the quality of our water (safety and aesthetics), and the availability of our water supply and dependability of sewerage services. It is also about being responsive to incidents, fixing faults quickly and simply to minimise interruptions to service. By delivering this we meet our compliance responsibilities.

Lower prices for customers

Customers across South Australia will receive a total annual reduction in bills of approximately \$186 million in 2020-21.

The average residential customer in metropolitan Adelaide will benefit from an estimated annual saving of \$200 or 15.9 per cent on their combined water and sewerage bills*, with average residential customers in regional areas estimated to save around \$185**.

The water savings estimator was made available at sawater.com.au on 11 June 2020 and in the 20 days through to 30 June 2020, 36,145 residential customers used it to estimate how much they may save on their future water costs each year.

Business customers in the metropolitan area are also in line for significantly lower water and sewerage prices, with an estimated average annual combined water and sewerage bill reduction of \$1,350#, with savings for the average business in regional areas of \$1,280##.

In the pricing announcement, made in June 2020, price movements will be limited to changes in the Consumer Price Index for the remaining three years of the regulatory period from 1 July 2021 through to 30 June 2024.

Statewide pricing means the majority of our customers pay the same price per kilolitre of water, no matter where they live or the actual cost of supplying that location. Sewerage prices, based on the capital value of a customer's property as set by the Valuer-General, are also designed so that costs are as consistent as possible across the state.

Our pricing continues to compare favourably to our national peers, as measured in the Bureau of Meteorology's *National performance report 2018-19: urban water utilities*, which was released in February 2020. Based on 200 kilolitres, our annual residential water and sewerage bill is mid-range among 15 similar-sized utilities around the country.

Providing safe, clean drinking water

Our drinking water supplies are registered with SA Health and we maintain risk management plans for all our supplies.

Both our drinking water supplies and Drinking Water Quality Management System have, in 2019-20, been audited and inspected through internal and external audit processes.

The *Drinking Water Quality Act 2011* audit, conducted in November 2019, covered our Drinking Water Quality Management System (DWQMS) assets involved in delivering drinking water, as well as associated operational and maintenance processes and practices.

The audit found our DWQMS is complete, working, actively managed and current, with no urgent observations or significant non-compliances with the Australian Drinking Water Guidelines.

Water quality reports are provided to SA Health and are available publicly at data.sa.gov.au.

The Australian Water Quality Centre, accredited by the National Association of Testing Authorities, provides our laboratory services.

Throughout 2019-20, SA Health provided confirmation quarterly that we were meeting the requirements for the *Safe Drinking Water Act 2011*.

See Water Quality on page 50 for further details.

* Estimated saving based on 180kL of water use and a 2019-20 property value of \$483,000 with water used evenly across the year.

** Estimated saving based on 180kL of water use and a 2019-20 property value of \$256,000 with water used evenly across the year.

Estimated saving based on 1,680kL of water use and a 2019-20 property value of \$2,081,000 with water used evenly across the year.

Estimated saving based on 1,680kL of water use and a 2019-20 property value of \$993,000 with water used evenly across the year.

Sustaining our networks

An independent review, commissioned by our Board, assessed our water mains management practices and capabilities against international leading-practice in 24 areas, determining that seven are leading international practice, 15 are in step with industry practice and two can be improved.

The review confirmed our water network performance compares favourably on both the rate of water main breaks and the amount of leakage against Australian and international peers, being in the best performing quartile for both measures.

In addition to our ongoing water main replacement program, and as recommended by the independent review, we actioned several initiatives to improve our approach to water main management including installing smart sensor technology along mains under arterial roads.

Changes were made to how we capture information about temporary water supply interruptions. Using our Work Order App, field crews now capture the start of a temporary water supply interruption and when supply restoration has started. This enables quicker customer notifications when restoration of their supply has begun.

A new Asset Management Planning Assurance Framework was developed and implemented. It covers four lines of defence — management controls, management reviews, and internal and external audits — across all our asset management activities.

Our focus continued on finding ways to reduce the average length of temporary supply interruptions as well as community impacts such as traffic management.

Through our ongoing water main replacement and improvement program, we invested \$362.5 million in the water network and infrastructure and \$157.3 million in the wastewater network and infrastructure. Planning also continued for the expansion of our smart water network.

To further improve reliable water services for customers, we installed 37.1 kilometres of new water mains comprising 11.8 kilometres in metropolitan Adelaide and 25.3 kilometres in country areas across the state.

Although South Australia experienced its driest year on record in 2019, the number of water main incidents last year remained steady, with month to month patterns following a similar seasonal cycle since records began in 1992.

Across our 27,000 kilometre water network, 3,721 water main leaks and breaks were reported in 2019-20.

In the Bureau of Meteorology's *National performance report 2018-19: urban water utilities*, released in February 2020, our rate of breaks per 100 kilometres of water main was 15, which is below the national average of 19.9. This is a key measure to assess and compare the performance of water distribution networks and the Bureau analyses the performance of 85 water utilities across Australia. Among our peer utilities, more than half recorded an increase in the number of water and sewer main breaks in 2018-19, compared to the previous year.

Our valve installation and water main renewal programs, together with favourable seasonal conditions delivered a reduction in the number of properties experiencing three or more interruptions during a 12-month period. In 2019-20, 2,432 properties across the state experienced reoccurring temporary service interruptions, which was slightly above target and equates to approximately 0.31 per cent of connected water supplies.

Internal sewer overflow figures trended steadily downward with 161, the lowest achieved in the past six years.

Implementation of our smart sewer network sensors continue to help detect blockages before they cause an overflow. Targeted sewer cleaning is also part of our proactive approach.

To provide a better solution for customers who experience repeat issues with sewer blockages, we worked with 10 customers across a range of suburbs to use a tree root foaming treatment.

The treatment uses a herbicide that is pumped into the sewer to prevent the growth of tree roots in the pipes. The foam has a root growth inhibitor that attaches to organic materials and sterilises the soil where the roots enter the pipes. This non-systemic herbicide does not harm plants or trees near the pipes. The foam only affects the root material it comes into contact with and travels just a short distance up the root.

This treatment slows intrusion of tree roots into our sewer pipes and the trial has helped determine that it can take up to two years for the roots to return. Maintenance can now be scheduled proactively to improve the dependability of the sewerage services we provide in these areas.

The customers welcomed the opportunity to be part of this initiative which supports our healthy sewers approach by encouraging customers to flush only the three Ps: pee, poo and (toilet) paper. Problems caused by tree roots can be compounded when the wrong things are flushed down the toilet or sink.



The anaerobic digester's 20 tonne steel cover was carefully guided into place with the help of a locally-sourced mobile slew crane.

Port Lincoln digester delivers

The \$18 million upgrade of the Port Lincoln Wastewater Treatment Plant at Billy Lights Point reached a major milestone in February 2020, with the 20 tonne steel cover for the new anaerobic digester craned into place.

The digester's construction included the structure's round concrete walls and installation of internal stainless steel pipework.

The floating cover sits comfortably in a concrete channel, controlled by guide rails and rollers. It moves up and down depending on capacity within the digester, which is also sealed by water to prevent the escape of biogas generated during the digestion process.

Biogas is extracted and burnt to provide a source of heat for the digester, helping to hold waste at a constant 38 degrees Celsius to create an optimal environment for the bacteria inside.

When complete, the new infrastructure will reduce methane emissions, and improve odour management and the long-term operability of the treatment plant.

Throughout, our lead contractor worked alongside 25 Port Lincoln businesses including 13 local contractors and 12 local material suppliers.

The construction of the new digester is part of a broader upgrade of the Port Lincoln Wastewater Treatment Plant and network which is expected to be complete before the end of 2020.

Kanpi connects to remote desalination plant

In 2019-20, Murputja, Kanpi, Nyapari, in the state's Anangu Pitjantjatjara Yankunytjatjara (APY) Lands, began to receive safe, clean drinking water treated through the Murputja Desalination Plant.

The solar and battery powered 60 kilolitre capacity plant, commissioned in July 2019, treats water sourced from local bores, before it is piped through about 12 kilometres of pipeline into homes and businesses across Kanpi, Nyapari and Murputja.

The construction of additional pipework to bring the water to Kanpi was completed in June 2020. To achieve this crews had to work a little differently due to various restrictions to prevent the spread of COVID-19 in South Australia's remote areas. As an essential service, our work continued and on the ground we maintained strict hygiene and physical distancing measures where possible.

Yankalilla wastewater and Wirrina water networks transferred

On 1 July 2019, more than 2,000 property owners within the District Council of Yankalilla became SA Water customers when we took on responsibility for the operation and maintenance of the region's wastewater network, plus the drinking water supply network servicing the town of Wirrina.

The transition to our management delivered reduced sewerage service rates for most residential wastewater customers in the broader council area and lower ongoing water charges for people in Wirrina through our statewide pricing structure.

Working closely with the District Council of Yankalilla and residents in the lead-up to the management change-over ensured a smooth transfer.

Upgrades at the Wirrina Cove reservoir and treatment plant were undertaken during 2019-20 as part of continued improvements to the Wirrina Cove drinking water network and the quality of water supplied to local customers.

The water supplied to Wirrina Cove customers remains safe to drink, and we are committed to improving supply in a timely and cost-efficient way.

Community updates continue as further investigations and improvement work progresses.



Above: The desalination plant at Murputja now supplies Murputja, Kanpi and Nyapari on the APY Lands.



Left: The new pontoon at Wirrina Reservoir.

Improving water quality aesthetics

Customers' overall satisfaction with water quality increased steadily this year and our technical improvements for aesthetic drinking water quality included:

- optimising powdered activated carbon dosing to better manage taste and odour compounds caused by algae
- improved management of chlorine residuals across metropolitan Adelaide, in particular those areas supplied by the Adelaide Desalination Plant
- ongoing chloramination of the supply to Myponga
- targeted mains flushing in metropolitan Adelaide to remove pipeline sediment.

To engage and educate our customers we:

- provided the community with opportunities to readily access tap water at major events as well as taste a variety of tap waters from across the state
- developed and delivered school programs and teacher test kits
- installed 18 drinking water fountains in support of our Bring Your Own Bottle (BYOB) initiative
- continued proactive media to provide messages and engagement opportunities for customers about drinking water quality and the benefits of drinking tap water.

New look bill brings simplicity

In March 2020, our new look bill replaced all existing residential and non-residential bills, including eBills, bringing consistency across our entire customer base.

The new design was developed through a series of face to face customer workshops and extensive online testing across all our customer groups. With a simple layout, it is now easier for customers to find the information they need. This initiative also reduced printed residential bills from four A4 pages to just two.

Protecting the environment

In 2019-20, we achieved 98.1 per cent compliance with our legislated environmental responsibilities.

This measure tracks formal notifications from regulators of breaches under nine pieces of legislation:

1. *Environment Protection and Biodiversity Conservation Act 1999*
2. *Water Act 2007*
3. *Natural Resources Management Act 2004*
4. *Environment Protection Act 1993*
5. *Aboriginal Heritage Act 1988*
6. *Heritage Places Act 1993*
7. *Native Vegetation Act 1991*
8. *Climate Change and Greenhouse Emissions Reduction Act 2007*
9. *Development Act 1993.*

A faulty water meter at Beachport Bore 4 in October 2019 led the Department for Environment and Water (DEW) to issue a Direction Notice to repair/replace the meter as a condition of our licence to take water through a meter. The meter was replaced and is operational with no further action taken by the department.

In June 2020, DEW issued a formal warning for failing to submit a meter reading within the timeframe specified in the conditions of the water licence. No penalty was incurred.



Our new look bill has a simple layout and was developed with customer input.

Regulatory performance standards achieved for 2018-19

In March 2020, the Essential Services Commission of South Australia (ESCOSA) reported on outcomes against our performance standards for 2018-19, with all 18 service standards achieved, improving on the previous year's results.

As shown in ESCOSA's review of our performance, 17 of the 18 service standards were met or exceeded outright. The remaining service standard was within one per cent of the target and considered to be in the expected performance range. Mitigating circumstances for several events that missed the target timeframe were considered under a best endeavours review.

ESCOSA's annual Regulatory Performance Report details our performance against regulatory requirements relating to customer service, financial assistance provided to customers, and the reliability of drinking water and sewerage services.

The targets are based on average historical performance, and while attainable, are set high to match our customers' expectations.

In 2018-19, we exceeded targets for phone and complaint responsiveness, and the number of complaints decreased for a second year in a row, from 1,763 in 2017-18 to 1,568 in 2018-19.

A key area of improvement identified in both ESCOSA's report and the Bureau of Meteorology's *National performance report 2018-19: urban water utilities* (released in February 2020) is the frequency and duration of unplanned water interruptions, with around 2,700 reported last year in metropolitan Adelaide at an average duration of 243 minutes.

In response we have trained more field crew members to operate shut-off valves as part of water main repairs, investigated innovative ways to isolate, repair and restore the water network, and optimised resources for repairs in regional areas. This is supported by our smart water network technology which helps us detect water main leaks and breaks to enable proactive repair before they impact customers and commuters.

For a full copy of the 2018-19 SA Water Regulatory Performance Report, visit escosa.sa.gov.au.



The new spillway at Kangaroo Creek Dam.

Cyber security

The risk of a cyber security incident is a real threat to our ability to supply water services for our customers. In 2019-20 we strengthened our data protection and recovery capabilities by:

- upgrading and extending data network security, including in our regional centres
- improving our detection and desktop monitoring capability with a new event detection and response tool, adding another line of defence to our virus and malware protection
- ensuring up to date software and operating systems are in place with a complete upgrade to Windows 10.

In addition, we benchmark ourselves against our peer Australian water utilities and other critical infrastructure providers such as the electricity industry. Our performance fares well in the global independent ratings.

Ongoing and extensive collaboration continues with the Office of Cyber Security within Department of the Premier and Cabinet and the Australian Cyber Security Centre to prepare and respond to the ever changing cyber threat landscape.

Kangaroo Creek Dam upgrade reaches finish line

After nearly four years of construction, the \$94 million safety upgrade of the Kangaroo Creek Dam in the Adelaide Hills was completed in November 2019.

Work began in January 2016 and focused on significantly widening and strengthening the dam's concrete spillway. The spillway, which carries water safely to the River Torrens if the water level exceeds the dam's full supply, was widened by about 45 metres. The project also increased the height of the rock-fill embankment and reused rock material from the blasting activities to raise the dam wall by five metres.

These works have strengthened the dam structure against earthquakes and improved its flood protection capacity, aligning it with updated safety guidelines set by the Australian National Committee on Large Dams.

The Kangaroo Creek upgrade was one of our largest projects in recent decades having required:

- about 34,000 cubic metres of concrete
- more than 500,000 construction hours worked
- more than 1,250 people to work on the project
- the removal of 330,000 cubic metres of rock
- 35 pieces of heavy machinery
- the removal of 11 tonnes of carp.

Hydroseeding of the construction site compound and access road shoulders was completed in May 2020 closing out work for this project.



Mount Bold Reservoir emptied ahead of safety upgrade

In May 2020, the state's largest reservoir was gradually emptied ahead of a major dam safety upgrade at the Mount Bold site, south of Adelaide. Water from Mount Bold Reservoir supplies Happy Valley Reservoir via the Onkaparinga River and to minimise waste, water continued to be diverted in this way as Mount Bold was emptied.

Works undertaken in 2019-20 included replacing some of the equipment used to isolate the dam's valves and pipework, and a detailed condition assessment of parts of the structure that would usually be underwater. This condition assessment complements other project planning and investigations.

The water level at Mount Bold was last lowered to near zero per cent of capacity in 1994, making this only the second time in the reservoir's history that it has been emptied.

The forthcoming upgrade will keep it in line with updated safety guidelines set by the Australian National Committee on Large Dams.

The bulk of the upgrade works are expected to start in 2022-23.

Northern Adelaide irrigation begins to flow

Construction of the first six gigalitres of capacity, including treatment, underground and above ground storage, and distribution, has been delivered for the Northern Adelaide Irrigation Scheme.

The scheme, which provides treated wastewater to horticulture and other businesses operating on the Northern Adelaide Plains, is funded by the federal government through the National Water Infrastructure Development fund, as well as contributions from wastewater and recycled water customers.

The federal Department for Health and Wellbeing gave approval in April 2020 to use the water for producing commercial food crops.

Contracts to access water through the scheme are in place with 23 customers, who typically grow tomatoes, capsicums, cucumbers and other vegetables.

When complete, the scheme will deliver 12 gigalitres of treated wastewater to growers every year.



Above right: Mount Bold Reservoir was emptied for just the second time.

Above left: The pressure media filters for the Northern Adelaide Irrigation Scheme at Bolivar Wastewater Treatment Plant.



Supporting national drought relief

An agreement reached between the state and federal governments resulted in additional production of drinking water from the Adelaide Desalination Plant, freeing up the equivalent release from the River Murray to help drought-affected farmers.

In 2019-20, the Adelaide Desalination Plant produced 40 gigalitres of drinking water for the Water for Fodder program.

The Adelaide Desalination Plant operates in a mode known as hot standby, where it is brought online intermittently at high production levels to make sure the vital asset is able to produce the required volumes of drinking water when needed. This innovative approach meant we were able to increase production within days

of the Water for Fodder program being announced. The plant met the progress milestones set by the federal government while maintaining a seamless supply experience to our metropolitan customers.

The state and federal government agreement ensured no adverse impact on flows to South Australia, water prices or Adelaide's water security.

The Adelaide Desalination Plant produced 40 gigalitres of drinking water.

Working together

Productive, respectful relationships with our community, regulators and other stakeholders are key to delivering services our customers value. This includes ensuring we support our customers when something goes wrong, and protecting and improving the environment now and for future generations.

New construction partners announced

In June 2020 we announced five major companies will work together with us to deliver our \$1.6 billion capital program from July 2020 through to June 2024. Their significant construction expertise will help us improve water and sewerage services for South Australians.

Major framework agreements were signed with Fulton Hogan Utilities, John Holland and Guidera O'Connor (as a joint venture), and McConnell Dowell and Diona (as a joint venture), which will see packages of work awarded progressively as rigorous performance standards are met.

To ensure our customers benefit from improved service reliability and quality we have combined leading construction sector expertise with our design, project management and water industry expertise, and our front-end engineering and client organisation partner KBR and Aurecon, who have also signed on for the next four years.

As part of the agreements, our major framework partners have detailed their commitments to South Australian industry, Aboriginal business and employment, as well as other social outcomes, and their performance against these commitments will be measured.

Investing in water networks has wide reaching and long-term benefits, from the jobs created during construction, to the sustainable prosperity of a business able to access fit for purpose water, and the ongoing health and social outcomes that clean water and reliable sanitation services embed across generations.

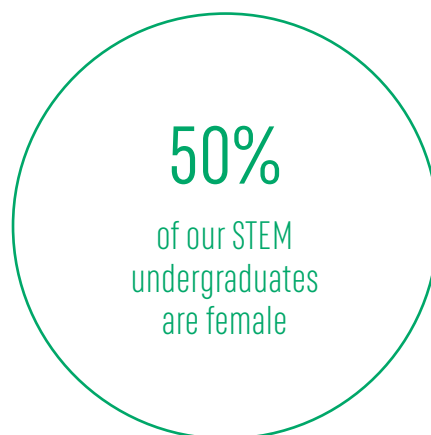
Strengthening support for women in STEM

The career opportunities and development of South Australian women entering the fields of science, technology, engineering and maths (STEM) have been boosted by our new three-year partnership with the University of Adelaide's Women in STEM Careers Program (WiSC).

The WiSC program provides women studying in the STEM fields with workshops and networking events designed to improve their leadership and career development, and provides a platform for future graduate employment opportunities.

Following our sponsorship in 2019, four graduates and undergraduates joined the team through the program.

With an ambitious goal to increase the number of female graduates joining our business to 60 per cent by 2024, we are making good progress with more than 50 per cent of our STEM undergraduates being female and 47 per cent of all our graduates.





Torrens Park Pump Station community colour

More than 60 litres and 120 spray cans of colourful paint now decorates our historic Torrens Park Pump Station thanks to a public art project delivered together with the City of Mitcham.

Situated next to the Torrens Park Railway Station on Belair Road, the station's three public-facing walls were given new life by influential South Australian artist Joel Van Moore — also known as Vans the Omega — with the work completed in July 2019.

The artwork is part of an initiative to visually improve our infrastructure for the benefit of the community.

The site plays an important role in delivering clean, safe drinking water to our customers in the Mitcham and Torrens Park area.

The artwork design incorporates unique elements common to the local community including images of the nearby Brown Hill Creek, the native Purple-crowned Lorikeet and parts of the pumping infrastructure from inside the station itself. The mural also features a young girl on the northern façade as a representation of the bright future of the Mitcham area.

Metropolitan Facilities Manager Richard Mayger also features on the mural, having been a dedicated member of the water industry for more than 45 years.

The work contributes to creating a vibrant and cultural community, helping people experience art in their everyday life. It was identified by the Mitcham Art Advisory Group as a project of importance, and we worked in partnership with the council to bring new life to the pump station.

Metropolitan Facilities Manager Richard Mayger at the mural site with General Manager Customers, Strategy and Innovation Anna Jackson, artist Joel Van Moore and Mayor of the City of Mitcham Heather Holmes-Ross.

Partnerships bring community benefits

In 2019-20, there were 11 recipients of our Community Partnerships Program which offers financial or in-kind support to not-for-profit community organisations to deliver events and projects across regional and metropolitan South Australia. The successful recipients deliver events or programs related to water use for a better life and help us achieve our goal of being a partner organisation within communities.



Top: Lincoln Park's Sonya Little with Derek Vanderzon from our Murray Bridge team with a newly installed refillable horse trough.

Middle: Tim Shannon with community members at the Murraylands Migrant Resource Centre water wise garden.



Bottom left: Lucindale Area School Principal Adrian Maywald, District Leader South East Chris Tschärke and Lucindale Area School Governing Council Chairperson Georgie McKay with the newly installed access swing.



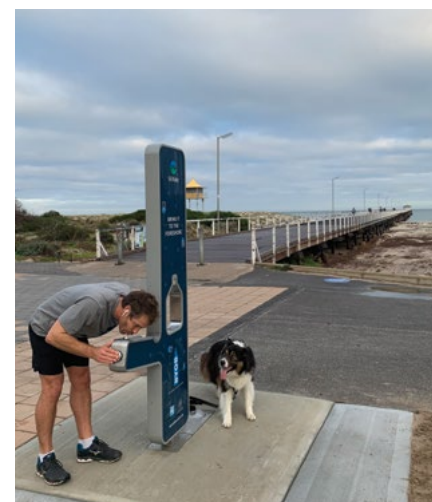
Bottom right: The restored Beltana Weir in the Flinders Ranges.





Left: The new waterholes are part of Monarto Safari Park's Wild Africa.

Below: Eighteen new drinking water fountains were installed.



New waterholes at Monarto safari park

Through our partnership with Zoos SA, millions of litres of water helped to fill the first of eight new waterholes at Monarto Safari Park's Wild Africa.

The first six clay lined waterholes were piped with raw River Murray water from the Murray Bridge to Onkaparinga Pipeline, providing up to 10 million litres of water per waterhole for the rare African animals roaming the 560-hectare Monarto property.

Our partnership supports the park's exciting expansion to become the largest safari park outside of Africa.

Water flows at new community fountains

Eighteen new free drinking water fountains were installed in 2019-20 bringing the total in operation across the state to 52.

The fountains are connected to our mains supply and include both bottle refill and bubbler options, some also have an in-ground dog bowl. Built-in solar lighting makes them bright and easy to find at night.

The following fountains were installed in collaboration with local councils:

1. Adelaide Square, Crystal Brook
2. Bindarra Reserve, Brighton
3. Bowker Oval, Somerton Park
4. Christies Beach Surf Club
5. Crown Street Reserve, Dover Gardens
6. Lions Park, Kingston

7. Lyndoch Square
8. Main Street, Orroroo
9. Memorial Oval, Port Pirie
10. Moonta Bay foreshore
11. Murray Bridge Visitor Information Centre
12. Naracoorte Swimming Lake
13. Recreation Reserve, Kimba
14. Skate Park, Freeling
15. Tumby Bay foreshore
16. Whispering Wall, Barossa Reservoir Reserve

Fountains were also installed at the Adelaide Desalination Plant's Kauwi Interpretive Centre, and South Para Reservoir Reserve.



Clockwise from left:

Our Brand Ambassadors are out and about at community events.

Our Miss Isla water infusion station kept the community hydrated at the Superloop Adelaide 500.

Misting systems helped keep the crowd cool at the race.

Miss Isla was popular at WOMAdelaide in March 2020.

Our Brand Ambassadors

Our Brand Ambassadors, sourced from enthusiasts across the organisation, represent our business at community events, site tours and large scale events such as the Santos Tour Down Under, WOMAdelaide and the National Pharmacies Christmas Pageant.

Keeping event goers cool and refreshed

During the 2019-20 summer, our Brand Ambassadors, Miss Isla and the Quench Benches helped keep event goers cool and hydrated.

Supporting our BYOB initiative, Miss Isla promotes a healthy lifestyle and better environmental outcomes by refilling re-usable bottles with safe, clean tap water.

The misting lounge adjacent to Miss Isla is greened by hanging plants creating a cool, comfortable space to relax and connect with our Brand Ambassadors. The misting lounge promotes how people can use water efficiently to reduce temperatures, increasing green space and create a better living environment.



BYOB app maps drinking fountains

In December 2019, our BYOB app was made available for download to Apple and Android devices to help South Australians and tourists find a fountain to fill up their reusable bottle. The app shows the location of more than 1,000 drinking fountains across South Australia.

Basic information about each fountain's features include if it has a water bottle refill, dog bowl and tap. Users can rate fountains, helping to alert local councils when one may need some attention, and add new ones that are not yet on the map.

Community programs and events

In 2019-20 our community and education program provided learning opportunities for students and the community including:

- 1,671 people touring the Adelaide Desalination Plant and Kauwi Interpretive Centre, including 14 Cree Indigenous visitors from Canada
- 12,286 students and their teachers participating in our Brainwave learning programs
- 447 people attending community presentations about water services and touring our treatment plants
- our Quench Benches and fountains providing more than 100,000 litres of drinking water to about 1.3 million people at more than 120 public events across the state.



Little Para natives a budding success

More than 3,300 new native trees are sprouting at Little Para Reservoir Reserve as part of our efforts to improve the area's ecosystem.

Partnering with the Kersbrook Landcare Nursery in Williamstown, the revegetation project will improve the environment of the reservoir's reserve while providing a long-term solution to combat the spread of invasive Coolatai grass.

The land was previously used as sheep grazing pasture which left the area vulnerable to weeds.

The revegetation efforts are also critical to maintaining the health of our catchments including the quality of water supplied to our customers.

Our BYOB program encourages people to drink safe, clean and affordable tap water and reduce the use of single-use plastic bottles.

Left: Landscaping at Kadina Depot shows native plants selected to demonstrate different water efficient gardening styles.

Right: Irrigated with recycled water, Whyalla's Bennett Oval was sporting a lush green playing surface for a pre-season AFL fixture.



Kadina plantings grow local gardening inspiration

More than 300 locally-sourced native plants are springing to life at our Kadina Depot as part of a landscaping project to enhance the area's visual amenity, improve dust suppression and demonstrate water-efficient gardening methods that customers can easily replicate at home.

Working together with local Aboriginal business Stone Environmental and Northern Yorke's branch of the Australian Plants Society, we designed the garden using 34 species of local native flora which were carefully selected for their heat tolerance and adaptation to the area's alkaline soils.

With the depot situated in the heart of the town, this project provided an exciting opportunity to showcase gardening with native plants, helping to educate the local community and beautify the surrounding area, as well as, over time, provide shade cover to help reduce urban heat effects.

Recycled water keeps Whyalla's oval green

A new supply of recycled water from the Whyalla Wastewater Reclamation Plant has helped curate a pristine, AFL-standard playing surface for the historic Bennett Oval.

The oval's redevelopment included an extensive irrigation overhaul to connect to our recycled water supply, providing a climate-independent water source for the upgraded turf.

Recycled water is distributed to the council's central pump station, where it is used to irrigate several other parks and reserves throughout the town.



The new access platform at the Goolwa Barrage enables visitors to safely walk on both sides of the barrage.

Improved public access at Goolwa Barrage

Visitors to the Lower Lakes Barrages can now access the Goolwa lock thanks to a new platform and fencing on the eastern side of the lock.

Members of the public are now able to safely walk across both sides of the 30 metre-long, six metre-wide structure at the Goolwa Barrage for the first time, providing a unique view directly down the Coorong.

Located at the end of the River Murray system, the Goolwa Barrage is one of five important barrages constructed between 1934 and 1940 to reduce salinity levels in the lower reaches of the River Murray, Lake Alexandrina and Lake Albert, and also to stabilise the river level for both upstream pumping and irrigation.

The upgrades at Goolwa Barrages, which also included ongoing rehabilitation works to the nearby Sir Richard Peninsula, helped our River Murray Operations team win the coveted Senator JS Collings Trophy early in 2020, which is awarded annually by the Murray-Darling Basin Authority to the most effectively maintained asset in the River Murray system.

We manage structures along the River Murray on behalf of the Murray-Darling Basin Authority, from Lock 9 in Cullulleraine, Victoria, to the Goolwa Barrages, including the Lake Victoria storage in New South Wales.

Results in Katarapko

Delivery of the major infrastructure needed to support the Katarapko Floodplain Inundation Measures (KatFIM) project in the Riverland reached practical completion in May 2020.

As part of the \$155 million (federally funded) South Australian Riverland Floodplain Integrated Infrastructure Program, the KatFIM project saw us manage the detailed design, construction and commissioning of the capital works on behalf the Department for Environment and Water and the Murray-Darling Basin Authority.

Covering 9,000 hectares, the floodplain is located on the Katarapko/Eckert Creek and a branch system in the Riverland, opposite Loxton.

The KatFIM infrastructure enables managed inundation events to occur on the floodplain which closely mimic natural flood durations and frequencies. In the long-term, this will improve the resilience of the floodplain environment and restore habitats for biodiversity.

The major vegetation communities are red gum, black box and lignum and it is home to a variety of wildlife and many sites of Aboriginal Cultural Heritage significance which require protection.

Leading the way

With a proud history of pioneering and innovative thinking, we continue to adopt inventive approaches to achieve better outcomes for our customers and the communities we work in.

This includes our contribution to the South Australian economy and jobs, and being a South Australian community partner. We build confidence with customers as a leader in innovation and technology, including contributing to building cities of the future.

A new Reconciliation Action Plan

Engaging with Aboriginal communities from across the state along with our people, we have this year developed our next Reconciliation Action Plan 2020-23 (RAP). To capture thoughts and ideas we held conversations, workshops and surveys with our people, remote communities, the broader South Australian community, our residential and business Customer Advisory Groups, and our RAP Steering Committee. The process was guided by Aboriginal leaders from across South Australia. In our new RAP we will continue to build and maintain:

- economic opportunities for Aboriginal and Torres Strait Islander businesses and people
- stronger Aboriginal and Torres Strait Islander communities with improved liveability, and sustainability through water and wastewater services
- a culturally respectful workplace and South Australian community.

The plan was endorsed by our Board and Reconciliation Australia in May 2020.

In 2019-20, key achievements include:

- our highest Aboriginal employment rate of 2.76 per cent in April 2020, with an overall rate of 2.6 per cent for the year
- a spend of more than \$3.2 million with Aboriginal businesses, comprising a direct spend in excess of \$500,000 and indirect spend of more than \$2.7 million.

Sharing water wisdom

Our Water Wisdom video series continued this year with stories shared by the Adnyamathanha and Ngarrindjeri people.

This series aims to build understanding and appreciation of the significant innovations and technologies related to water and water management that have been developed and used by Aboriginal people for thousands of years. Recording these stories enriches the knowledge and understanding of the broader community as well as within our business.

The community-directed stories highlight and celebrate the rich understanding of water management that was central to life for Aboriginal people, and still exists today. The project encourages respectful sharing of traditional and contemporary knowledge and has become an important part of our Reconciliation Action Plan, extending the understanding of Aboriginal knowledge beyond spiritual connections with water by sharing new ways to find, manage and understand fresh water opportunities across our state.

Completed videos from the series were shared with our people during National Reconciliation Week.



Outback footy oval powered up

More than 1,300 kilometres north-west of Adelaide in the middle of a vast red landscape, the green oasis of the Amata Oval was opened in November 2019 for the local football league and wider community to enjoy.

The oval in the Anangu Pitjantjatjara Yankunytjatjara (APY) Lands is irrigated using recycled water from our nearby wastewater treatment plant.

To celebrate the opening, students from schools in the region were joined by players from two football teams: the 2019 premiers the Amata Swans and Port Adelaide Football Club.

The objective was to provide Amata with a cool and functional open space that can be maintained in an environmentally sustainable way.

Each day about 70,000 litres of wastewater is treated at the plant and pumped to an underground irrigation system at the oval.

Building relationships with the local community to understand what would be valued was essential to ensuring the infrastructure delivers both public health and liveability outcomes for the people we are serving.

Skills shared build capability

Working with members of the Anangu community, we continued to deliver a plumbing course that empowers community members to fix water leaks and provides education on water and sustainability.

Two courses were offered in 2019-20 with more than 85 students and community members participating in the program to date, which we are now delivering to communities across the APY Lands.

At the heart of these relationships is the direct involvement of our frontline people who are driven by a desire to achieve access and outcomes for Aboriginal people and communities.

During 2019-20, we began delivering our first Twinning Program in partnership with two Aboriginal corporations, Tauondi College and Neporendi Aboriginal Forum. Five of our people partnered with these organisations to share skills in governance, strategy, communications, marketing and finance.



Clockwise from top left:

The Amata Oval opening in November 2019.

The Quench Bench helped keep everyone refreshed at the opening of the Amata Oval.

Our plumbing course is empowering APY community members to fix water leaks and learn about water and sustainability.

In this together

The 2020 National Reconciliation Week theme, *in this together*, acknowledged that everyone has a role to play in achieving reconciliation.

Using our infrastructure as a canvas for Aboriginal artwork is an effective way to acknowledge the rich culture that Aboriginal people bring to our state. In 2019-20, three art projects were delivered in partnership with communities.

1. Port Augusta

Working together with Port Augusta City Council's Aboriginal Art Program, Aboriginal artists came together to create a vibrant welcome for visitors to Port Augusta on our pipeline. The artwork highlights the local Aboriginal culture and the area's role as a place to gather.

2. Kadina

The Kadina Depot wall mural is the centrepiece of the newly landscaped garden, which was created together with a local Aboriginal landscaping business, and features all indigenous plants.

Emerging Narungga artist Tamika Gollan delivered her first commercial, large-scale artwork. Tamika was mentored by established artist Samantha Gollan who provided guidance through the procurement and other formal processes involved.

The centrepiece of the mural is Narungga totem, the butterflyfish, with sacred fishing spots and techniques passed down through generations, making coastal waters a key part of Narungga identity.

3. Adelaide

Two large concrete pillars in the foyer of SA Water House were brought to life with Kaurna artwork and language. Working with Kaurna language expert Jack Buckskin, two of our own people, Bree Ah Chee and Sarah Smith, created artworks that celebrate and acknowledge the importance of bringing the Kaurna language to life, as well our respect for the people on whose land the building sits.



Clockwise from left:

The Kadina Depot mural was painted by Tamika Gollan (right) with mentoring and support from Samantha Gollan (left).

Cassandra Brown and Leah Brown working on the Port Augusta pipeline artwork.

Sarah Smith and Bree Ah Chee and their pillar artwork in SA Water House.





Creating and supporting future leaders

Kaurna Yerta Aboriginal Corporation (KYAC) sought our support to build a succession strategy for young Kaurna people to help shape their future. With a shortage of young leaders in many communities, this important work will help KYAC remain relevant and meet the needs of emerging and future generations and their leaders.

Between December 2019 and March 2020, we worked with KYAC and Coleman Consultants to host four community meetings for young Kaurna people, held in the south, north and west of Adelaide as well as the city.

The forums helped empower young Aboriginal people to have a say in their community and become involved in policy and decision making for the future.

While this work was interrupted by the COVID-19 pandemic, it is set to continue in 2020-21.

Building a zero cost energy future

Our ambitious plan to use renewable energy and storage to create a zero cost energy future has made significant progress this year with 150,000 solar photovoltaic (PV) panels installed across the state in 2019-20.

With water and wastewater treatment and pumping operations being energy intensive, we are one of the biggest electricity users in the state. As at 30 June 2020, the panels installed have the capacity to generate up to 57 megawatts and 95 gigawatt hours a year.

Installation has been completed at Mount Pleasant, Heathfield, Queensbury and Port Lincoln with work progressing at 18 sites across the state including Adelaide, River Murray, the Adelaide Hills and Eyre Peninsula.

About 500,000 solar PV panels will be installed to generate 242 GWh of electricity per annum and be complemented by 34 MWh of battery storage, which will provide 70 per cent of our electricity requirements in an average weather and water consumption year.

While there will be times when we need to draw electricity from the grid, this project enables us to store and sell energy at other times while protecting our business from the volatility of the electricity spot market and therefore keeping operating costs down.



Top left: Aunty Lorraine, Basil and Ros Coleman, Jack Buckskin, Sarah Smith and Jess Davies at the community forum held at the Kauwi Interpretive Centre.

Above: Solar panels were installed at a number of locations including Morgan (top), Kimba (middle) and Mount Pleasant (bottom).



Left: The new Murray Bridge Wastewater Treatment Plant is a leader in sustainability design.

Below: The art installation on the new pump station shares the culture of the Ngarrindjeri people.

New wastewater treatment plant sets Australian sustainability record

South Australia's newest wastewater treatment plant, at Murray Bridge, became fully operational in June 2020, bringing leading sustainability design to the facility that will process up to 4.5 million litres of sewage a day.

The \$52 million project was awarded an 'excellent' design rating from the Infrastructure Sustainability Council of Australia, the highest to date for a water or wastewater project in Australia. The rating is based on delivering cultural, social, environmental and economic benefits across the planning, design, construction and operations phases of infrastructure assets.

The new plant incorporates an odour control unit which consists of a bio-trickling filter and activated carbon tanks, designed to remove 99.95 per cent of odour from the plant. It also has an advanced biological treatment process called a moving bed biofilm reactor, which helps to break down sewage into sludge in a more compact, efficient and adaptable way than conventional methods. This plant is one of the first non-industrial wastewater treatment plants in Australia to use this technology.



As with the previous facility, the plant continues to recycle 100 per cent of its treated wastewater for irrigation use at a Department of Defence training area and a nearby pastoral property, and the on-site solar array will ultimately generate 150 kilowatt hours a day, helping to power the treatment plant.

A big part of the project's success was working with the local community in the lead-up to and during construction, with site tours and tailored education workshops for local school students.

An art installation incorporated into the pump station's design is underway to share the culture of the region's Traditional Owners, the Ngarrindjeri people, with the wider community.



Left: Drone pilots Daniel Haines and Paul Hawthorne at Christies Beach Wastewater Treatment Plant where drones will monitor the ambient temperature around the site's solar arrays.



Revegetation is increasing the biodiversity at Millbrook Reservoir.

Top: Millbrook in May 2017.

Bottom: Millbrook in April 2020.

Grassy woodland restoration at Millbrook

A 10-year plan to restore a former pine plantation to a grassy woodland ecosystem at Millbrook Reservoir is in its fourth year.

Through the revegetation project, we are partnering with the Adelaide Botanic Gardens' Seed Conservation Centre, Trees for Life's silver daisy-bush recovery project, Kersbrook Landcare Group and The University of Adelaide.

Drones bring new understanding of assets

Building on our long history of innovation, our seven licensed drone pilots, based in Berri, Port Pirie, Mount Barker and Adelaide, are maturing our capability and progressively using the technology at more of our water and wastewater facilities across the state.

Drones are enabling a safe working environment for our people and bringing benefits to our customers and the community.

Inspecting and maintaining our infrastructure is critical to ensuring reliable services for our customers, yet due to their size or location, access can be difficult.

Using drones for inspections improves safety outcomes, for example by reducing the need to climb to the top of an elevated water storage tank to complete an inspection of these vital assets.

Using drones also reduces the time taken to complete tasks, which in turn, is reducing operational costs.

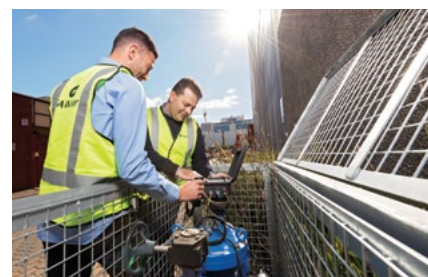
Along with asset inspections, our drones are now capturing aerial and thermal photography and videography to provide greater perspective to large-scale ground operations, assess environmental health and evolution over time, and monitor the progress of our capital projects.

Our drone pilots combine terrestrial laser scan data with UAV imagery and Pix4D photogrammetry software to provide a full inside-and-out 3D model representation of our assets, and harnessing the technology to create Digital Surface Models which help inform engineering projects.



Left: Sensors installed in the wastewater network are helping reduce customer impacts from sewer blockages.

Below: Our industry-leading smart water network is improving services for our customers.



Bluetooth valves improve maintenance

In a South Australian-first process, we are improving water services for customers in regional areas with the use of Bluetooth technology.

Used by our major pipelines maintenance team, the technology connects with a hydraulically actuated, computer-controlled machine that remotely opens and closes water main valves, through a process known as exercising, to keep the supply of drinking water to customers flowing.

Valves are important in controlling the flow of water through the network and to our customers, including during any planned shutdown or responsive works, so we need to make sure they are always working to limit any temporary water supply interruptions.

Applying Bluetooth technology improves pipe operations with the help of a hand-held mobile device and makes exercising water valves a low-risk, one-person activity.

The trial is now being extended to test valves across the state.

Smart tech success in SA's sewers

Following a successful start to a smart wastewater network trial in Stonyfell to June 2019, we installed additional types of innovative technology in more targeted locations.

In 2019-20, the technology enabled us to address 17 blockages before they could impact customers. This was achieved through analysis of data sent from network sensors to our Operations Control Centre, providing an advance warning and making it easier for us to know where and when to send our crews to unblock a pipe.

This type of technology is ground-breaking and we are one of the first utilities in Australia to use it in a comprehensive whole-of-suburb approach.

Similar types of technology are now being tested to potentially complement existing smart sensors.

Smart water network awarded

At the Australian Water Association's 2019 Water Awards in South Australia, our world-leading smart water technology received the Research Innovation Award.

The award recognises the step change in customer experience we have achieved after rolling out smart water and wastewater networks to manage water and sewer mains.

By using research to better understand smart technology we are detecting cracks in our pipes based purely on acoustic noises. The technology is now a key feature of our water network in the Adelaide central business district.

The smart water network uses acoustic sensors, pressure and flow data, high-speed transient pressure sensors, smart meters and water quality sensors to monitor the underground pipe network for faults. Results are assessed in our Operations Control Centre to identify any abnormalities in the network, and ensure we continue to deliver services for our customers.



Left: Will Brennan and Annette Warren from our Information Technology team with the Best Resilience Project Award.



Right: General Manager Customer Delivery Kerry Rowlands and Account Manager Development Services Debbie Snoswell with our UDIA awards.

Network resilience awarded

At the inaugural iNews Benchmark Awards in Sydney in early March 2020, our project to centralise SCADA control won Best Resilience Project.

Our Supervisory Control and Data Acquisition (SCADA) system is used to monitor and control our network and assets right across the state to deliver reliable services for customers. This winning project used new technology and operating opportunities to centralise the system on a virtual platform in one secure data centre.

The new approach improves security and supports quicker operational response and recovery, which was proven during our response to the bushfires on Kangaroo Island. The robust, resilient and cost-effective centralised system enables us to monitor, control and upgrade our critical infrastructure delivering essential services - on demand and with minimal temporary service interruptions for our customers.

Double success at development industry awards

In late 2019, we were recognised at the Urban Development Institute of Australia's SA Awards for Excellence.

Account Manager of Development Services Debbie Snoswell received an individual honour winning the Institute's Public Sector Award for achievements in the development industry during her 16-year career with SA Water.

Seen as a voice for land development customers, Debbie's focus is on delivering cost-effective solutions which bring benefits for both developers and SA Water.

Our focus on reconciliation and gender diversity saw us receive the Diversity in Development Award. The recognition demonstrates real progress we have made in both reconciliation and increasing job opportunities for women in the water industry.

Achieving trust

Our new approach to resolving complex customer issues was recognised in August 2019 by the Australian Society of Consumer Affairs Professionals, with our Customer Advocacy and Resolution team runners up in the Constellation Achievement Award.

The award acknowledges the significant contribution the team has made to improving the status of consumer affairs, complaint prevention and handling in our industry.

Air temperature sensors were installed at parks to track the cooling impact of effective watering.



Mapping cool, green parks

A new program aimed at increasing liveability through hot, dry summers in the urban environment using nano satellite technology saw us partner with 19 South Australian councils and Fleet Space to track the temperature at local parks and playgrounds using real-time data.

More than 200 air temperature sensors were installed in 2019-20 at public spaces and playgrounds. They have demonstrated temperature differences of an average three to seven degrees Celsius between green irrigated sites and non-irrigated spaces in the same suburb.

Available on our website, the data forms colour-coded maps indicating where the temperature is cooler and warmer.

In addition to community benefits, there are significant advantages for local councils needing to make cost-effective decisions about their irrigation practices, with more diverse and higher volume community activation driving increased value from the water already invested in maintaining green spaces like sporting ovals.

Dry ground can be just as hot as bitumen and artificial grass can be even hotter, so using water efficiently and in a cost-effective way can further reduce the creation of urban heat islands.

The data is provided to councils to compare irrigation patterns to any temperature reductions achieved, informing decisions on future park upgrades or investments.

Swan Reach declared top drop

Water produced from Swan Reach Water Treatment Plant in the Murraylands was awarded best tasting tap water in South Australia at the annual awards run by the Water Industry Operators Association of Australia.

The awards, held in Murray Bridge in early August 2019, saw more than a dozen samples from water treatment facilities across the state judged on colour, clarity, odour and mouthfeel.

Water at the Swan Reach plant is treated using a disinfection process called chloramination, an alternative to chlorine, which results in a less detectable taste and odour. Once treated, water from Swan Reach is provided to about 32,000 customers, including towns in the Murraylands region, and the Barossa and Clare Valleys.

A further 28,000 homes and businesses, some as far as Yorke Peninsula, are supplied a mix of water from our Swan Reach and nearby Morgan water treatment plants via a long, mostly above ground pipeline.

SA expertise testing Melbourne water quality

In 2019-20, the Australian Water Quality Centre (AWQC), our national laboratory service, signed two new contracts in Melbourne.

In November 2019, the AWQC began water sampling and field testing services for Victorian bulk water provider Melbourne Water.

Early in 2020, a three-year contract was secured with Yarra Valley Water, the largest of Melbourne's three retail water companies. AWQC will undertake sampling, laboratory testing, analysis and reporting services and expects to collect more than 7,000 water, wastewater and recycled water samples, and perform about 60,000 tests each year.

Both are three-year partnerships and expand the national service which AWQC provides the water industry, including Tasmanian water utility TasWater and Wannon Water in south-west Victoria.

With laboratory facilities in Adelaide and Melbourne, the AWQC provides a range of expert services to clients within Australia and internationally.

Capable and committed team

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

Safety and wellbeing of our people

With a focus on building the capability of our people to make the best possible decisions in their work environment to protect them from harm, this year our all injury frequency rate reduced by 30 per cent to 19.52, compared to 27.72 in 2018-19.

Our key focus in 2019-20 was on preventing potential life altering events by sharing lessons learnt from investigations to improve and prevent recurrence. Our high potential incident frequency rate reduced to 1.56, an improvement of more than 50 per cent on our 2018-19 result of 3.96.

In parallel, a series of wellbeing initiatives was delivered to build the capability of our people and included:

- an interactive video series to support wellbeing and resilience through the adoption of self-care strategies based on positive psychology principles
- virtual and on-site training covering COVID-19 support, remote working and time management, as well as promoting our Employee Assistance Program.

Diversity and inclusion

Diversity and inclusion is a source of organisational strength and we are developing a culture that embraces and celebrates diversity in all its forms, knowing that we best meet the needs of our customers when our people reflect the community we serve.

Initiatives to foster diversity and inclusion in our business saw us achieve our Diversity Index target during 2019-20. As at 30 June 2020, our overall Diversity Index, which is a composite of women in leadership roles, and Aboriginal and Torres Strait Islander employment and retention, was 86 per cent, favourable to our target of 80 per cent.

Innovation and excellence on show

Our 2019 Innovation and Excellence Awards recognised our people who delivered excellence and new thinking to serve our customers. The award winners were:

Above and beyond

The Land Management and Reservoirs team was acknowledged for going above and beyond to meet the high expectations of visitors and stakeholders following the opening of Myponga Reservoir Reserve for public access in April 2019. The team changed their day to day approach to deliver an excellent visitor experience.

Better life

Following the discovery of Aboriginal ancestral remains in Berri in February 2019, a project team with representatives from across the business came together and ensured the remains were laid to rest in accordance with the wishes of the local community. This project represents reconciliation through genuine engagement with Aboriginal people and recognises the team's efforts to support the local Aboriginal community during a period of grieving.

Environment

The visibility of environmental risks has been increased following their successful integration into our risk management platform, called SAAM. Significant work was done to review and standardise risk descriptions and ratings. The outcome is driving responsive and effective risk management and decision-making processes, and enhances analysis and reporting.

Innovation

A group from across the business came together to develop a way to measure the performance of our energy assets, supporting our goal to achieve a zero cost energy future by mid-2020. The diverse group with skills and interest in modelling, optimisation, data analytics and control systems developed, applied and tested optimisation methodologies for the Crystal Brook solar PV and battery storage facility. This project has driven new thinking to challenge the way we do things.

Inspirational leadership

IT Operations Manager Jon Howson was recognised for driving a huge positive culture shift in his team and across our broader information technology function. Jon empowers his people to develop and try new things. Under his leadership, IT has realised significant efficiency gains and reduced costs, while taking on support of new digital capabilities our business is adopting.

Safety leadership

Our Eastern and Western Eyre Peninsula teams worked together to improve safety, efficiency and customer service by implementing innovative processes to better manage fatigue, share critical heavy fleet, and use contractors to achieve attendance targets which can be challenging to meet across the vast regional area on the peninsula.

Together

Working with the Anangu Pitjantjatjara Yankunytjatjara (APY) Lands community, a small team developed and delivered a program that teaches basic plumbing and water sustainability practices to community members. With the aim of reducing high water consumption and transferring skills, the hands-on course met the needs of the community and linked with accredited training courses on offer through the APY Trade Training Centre.



Top: The work of teams from across the business supported the local Aboriginal community in Berri.

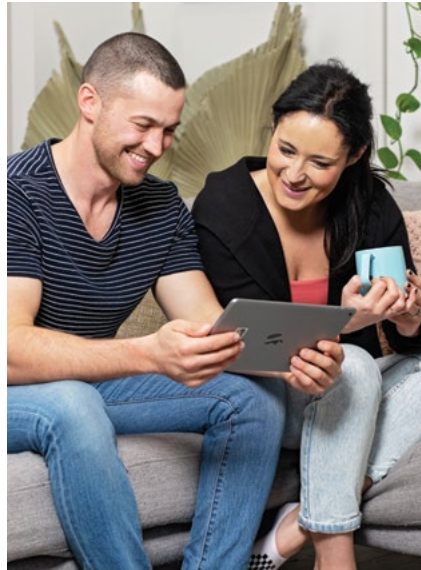
Middle: A cross-business team developed a way to measure the performance of our energy assets, winning the Innovation award.

Bottom: The Land Management and Reservoirs team, winners of the Above and Beyond award.

Keeping it simple

Our processes need to support the delivery of outcomes for our customers by making it simple to transact with us. Simple processes help us get the basics right, work together and lead the way.

We do this by innovating for continual improvement, applying technologies, using the right information at the right time, seeking efficiencies, and optimising how we operate. This includes our partners such as Allwater.



Where we're working

In March 2020, we improved transparency for customers about where we are working with an updated online map and reporting functions.

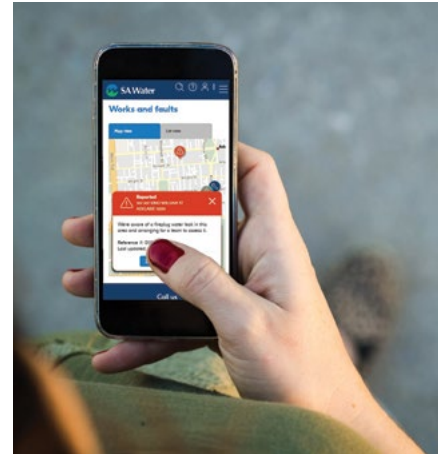
Customers can see a wide range of network improvement work underway and faults being repaired, plus easily use our website to let us know of any leaks or issues they spot. People can also subscribe and stay informed about repair work as we action and fix faults.

By using our in-house ArcGIS mapping technology our people designed and developed the mapping tool that was tested with customers at every step to deliver a simple and easy to use online report and subscribe service.

Through to 30 June 2020, the map had received more than 41,000 page views with more than 1,000 people subscribing for a works update.

Real-time chat

In March 2020, as our business responded to the changes necessitated by the state's response to the COVID-19 pandemic, we delivered WebChat as an additional customer digital communication channel.



Left: Customers continue to embrace digital services on offer.

Above: The new online map shows customers and the community where we are currently working.

With implementation accelerated in order to rapidly expand channel choices for customers, WebChat was up and running within five days.

Use of WebChat, which is delivered in real-time by our people based in Adelaide, continues to grow with 1,504 customer interactions since it launched.

Customers embrace digital services

Uptake of eBilling continued in 2019-20 and at 30 June, there were 154,054 properties registered to get eBills, up from 100,847 in 2018-19. Of these, more than 120,000 properties were registered with our online account management service, mySAWater.

Our customers are embracing the digital services we offer with continued growth in use of self-service transactions at 171,068, up from 150,368 in 2018-19.

In October, our new automated connection application process was made available for customers, increasing communication to customers and the speed of processing these applications.

Water quality

SA Health statement

SA Health and SA Water work cooperatively to ensure the continued protection of public health in relation to the supply of drinking water across the state. SA Water complied with all requirements under the *Safe Drinking Water Act 2011* including the notification of incidents under the interagency Water/Wastewater Incident Notification and Communication Protocol.

During 2019-20, SA Water collected 46,416 samples from drinking water supplies throughout the state. Samples were analysed for compliance with the Australian Drinking Water Guidelines (2011) (ADWG) and results reported to SA Health in line with agreed reporting protocols. Compliance with the ADWG for *E. coli* was achieved in 100 per cent of metropolitan Adelaide samples, 99.96 per cent of country samples and 100 per cent of remote Aboriginal community samples. Overall compliance with the ADWG for health-related parameters was 100 per cent for metropolitan systems, 99.91 per cent for country areas and 99.32 per cent for remote community supplies.

The total number of incidents notified by SA Water during the reporting period was higher compared to 2018-19. The majority of this total increase was due to incidents arising from unauthorised activities in 2019-20 at drinking water reservoir reserves now open for people to visit. Warmer than average temperatures and periods of above average rainfall resulted in increased numbers of incidents reported due to detection of cyanobacteria and enteric protozoa in source water. The number of incidents in relation to customer complaints of dirty water was also higher. These are generally short-term events associated with maintenance activities. Incidents associated with disinfection were reduced in 2019-20 compared to 2018-19.

The impact of bushfire and the subsequent substantial rain event on the Middle River Water Treatment Plant were expertly handled. SA Water personnel are commended for their response and ongoing communication during the event and the recovery. There were impacts on aesthetic quality of the drinking water supply yet despite the damage to the treatment plant, supply of drinking water through the Middle River system to Kingscote was maintained at all times. Exceedances were recorded for manganese and aluminium concentrations and these were resolved appropriately.

Water quality incidents were notified by SA Water in a timely manner. Appropriate remedial actions were implemented and ensured the protection of public health was maintained at all times. No incidents required public notification during the reporting period.

Safe drinking water legislation

The *Safe Drinking Water Act 2011* provides the regulatory framework for drinking water providers in South Australia and is administered primarily by SA Health with assistance from local government. Provisions in the Act are underpinned by the ADWG and prescribe requirements for drinking water providers, including:

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

SA Water is registered as a drinking water provider and has established RMPs including approved monitoring programs and an incident notification protocol. SA Water provided water quality testing reports for metropolitan, country and remote community water supplies on a monthly basis with results showing a very high level of compliance.

46,416
samples were
collected statewide

100%
compliance achieved in
metropolitan systems

Under the Act, SA Water is required to undergo an annual independent audit. In 2019-20, the sixth audit of SA Water was undertaken since the Act took effect. A number of representative SA Water drinking water supplies were included in the audit. The audit outcomes were consistently positive and noted that SA Water was operating in compliance with the requirements and intent of the Act. Compliance improved relative to the five previous audits and no significant non-compliances were detected.

Further information on the *Safe Drinking Water Act 2011* can be found at sahealth.sa.gov.au/safedrinkingwateract

SA Water also provides additional information regarding water quality which can be found at sawater.com.au

Catchment to tap

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

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

Water quality monitoring and testing

The 87 drinking water supplies we operate serve customers across metropolitan, country and remote Aboriginal communities within South Australia.

To maintain quality, we have SA Health-approved drinking water quality monitoring programs with samples collected and analysed throughout all aspects of the water supply system, including catchment and source water, treatment processes and the distribution network up to the water meter on individual properties.

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

The following table summarises routine monitoring and testing activities in our SA Health-registered drinking water supply systems in 2019-20.

Number of sample locations and test analytes – statewide, metropolitan, country and remote Aboriginal communities water supply systems, 2019-20

Drinking water systems	Statewide	Metropolitan	Country	Remote Aboriginal communities
Supply systems	87	8	59	20
Customer tap sample locations	503	177	306	20
Catchment to tap sample locations*	1,511	369	1,021	121
Catchment to tap routine test analytes	372,352	79,580	289,997	8,682

* Includes customer tap sample locations

Drinking water quality and performance

In 2019-20, we demonstrated robust management of water quality by consistently providing safe, clean drinking water to our customers.

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

Statewide, metropolitan, country and remote Aboriginal communities drinking water supply systems health-related performance, 2019-20

Health-related parameters	Statewide systems (number of test analytes)	Metropolitan systems (number of test analytes)	Country systems (number of test analytes)	Remote Aboriginal communities (number of test analytes)
Samples free from <i>E. coli</i>	99.97% (10,307)	100% (3,221)	99.96% (6,995)	100% (91)
Samples compliant with ADWG health parameters*	99.93% (46,416) Target: 99.90%	100% (13,388) Target: 100%	99.91% (32,438) Target: 99.80%	99.32% (590) Target: 99.80%

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

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

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

We analysed 46,416 routine test analytes from our drinking water supplies (customer tap sample locations) throughout South Australia to determine health-related compliance.

- We achieved 99.97 per cent *E. coli* compliance across customer tap sample locations with exceptions in three country systems.
- Compliance with ADWG health-related parameters across customer tap sample locations was above target at 99.93 per cent.

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

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

The three *E. coli* detects in 2019-20 were all in the presence of chlorine or chloramine residuals at levels high enough to mitigate risk. Plant operation, chlorine/chloramine residuals and bacterial results from different locations around the time of the detects were reviewed and were all within specifications. Follow up samples were taken showing consistent chlorine/chloramine residual and no *E. coli* detected.

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



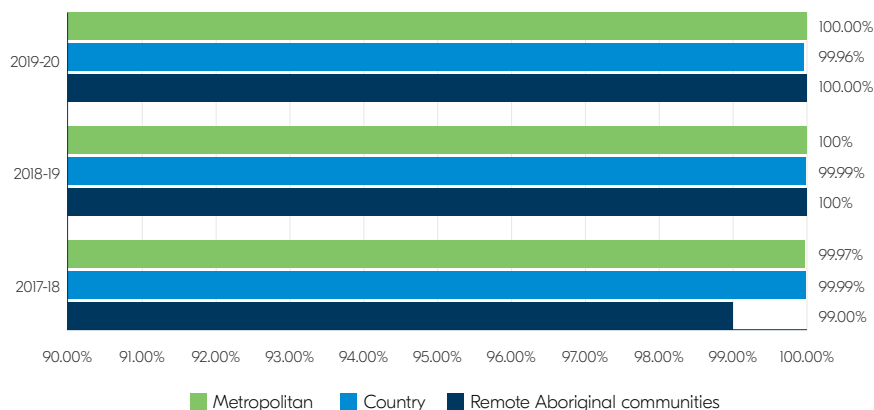
From 1 July 2019 we took on the responsibility of the Wirrina Cove water supply system from the District Council of Yankalilla. Since then we have installed a specialised aerator and are currently constructing a granular activated carbon plant, both of which will help remove disinfection by-products from the water, as well as improve its taste and smell.

Following positive feedback from Myponga township residents after changing the treatment chemical used to disinfect their water from chlorine to chloramine, we are now progressing with the chloramination of the wider Myponga drinking water system in two stages.

In 2019-20 we undertook planning, design and construction works at the Myponga Water Treatment Plant to facilitate this water quality improvement, which is designed to mitigate disinfection by-product challenges, with the additional benefit of improving the taste and smell of the water.

After assuming responsibility for the water supplies of Kanpi, Murputja and Nyapari in late 2017 we have now completed a water supply upgrade project that links these supplies together and includes storage and reverse osmosis (RO) treatment at Murputja. The water in this area has naturally occurring fluoride above the ADWG health limit and the RO treatment will reduce levels within the guidelines as well as improve the aesthetics of the water.

***E. coli* compliance at metropolitan, country and remote Aboriginal communities drinking water supply system customer tap sample locations since 2017-18 (customer tap sample location tests free from *E. coli*)**



Incident management

We are committed to applying the ADWG Framework for Management of Drinking Water Quality which includes two components for the management of incidents:

1. communication
2. incident and emergency response protocols.

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

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

1. Priority Type 1 incident notification

An incident that, without immediate appropriate response or intervention, could cause serious risk to human health and is likely to require immediate interagency meetings to consider responses. Procedures for Type 1 incident notifications also apply.

2. Type 1 incident notification

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

3. Type 2 incident notifications

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

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

Statewide drinking water supplies number of incidents (metropolitan, country and remote Aboriginal communities)

Reporting period	Priority Type 1	Type 1	Type 2
2019-20	1	36	63
2018-19	1	24	54
2017-18*	2	42	90
2016-17 [#]	2	48	159
2015-16	4	32	74

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

* Remote Aboriginal communities incidents included in annual reporting from 2017-18.

[#] Impacted by River Murray blackwater event.

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

The Priority Type 1 incident was due to the Duncan and Ravine bushfires on Kangaroo Island when the Middle River Water Treatment Plant sustained significant damage leaving it inoperable for about two weeks. In consultation with SA Health, untreated but disinfected raw water from Middle River Reservoir was approved as safe to drink and supplied to the network. In addition, we supplied boxed, bottled and tankered water to ensure ongoing alternative drinking water supplies for the community. An incident management team was setup and convened daily for the duration of the incident.

In 2019-20 the number of incidents, particularly Type 1 notifications, increased when compared with 2018-19. This can be largely attributed to an increase in source water incidents with 12 recreational access incidents recorded. This new incident category was introduced in 2019-20 as reservoir reserves began to be progressively opened for public access. In addition, we had three Type 1 cyanobacteria incidents at the newly acquired Wirrina Cove Water Treatment Plant system. There was a reduction in disinfection failures and filtered water turbidity incidents, primarily due to improved process monitoring and control systems at water treatment plants.

In 2019-20, we continued our focus on early detection and reporting to external agencies, briefing the Minister for Environment and Water, ensuring prompt corrective action and addressing the causes of preventable Type 1 notifications, such as disinfection failures and filtered water turbidity exceedances. Strategies used to achieve this include refresher training, optimisation of our drinking water quality monitoring program, ongoing operational and capital improvements, and continuous improvement of our Drinking Water Quality Management System.

The proactive water quality management of targeted water supply systems and detection and management of risks continued during 2019-20. Changes in reporting criteria issued by SA Health in the interagency Water/Wastewater Incident Notification and Communication Protocol also occurred and contributed to a change in reporting requirements.

Incident Response Index

The Incident Response Index (IRI) drives and guides correct responses when a Priority Type 1 or Type 1 incident is detected. The IRI is assessed against a number of criteria, with each component in the IRI designed to assist the management of water quality incidents, including reporting, initial response and longer-term preventive measures. The overall 2019-20 strategic target for the IRI was 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 2019-20 target: 85%
Incident entered into the incident management system in less than two hours	
Initial effective response taken within three hours	
Written report to Minister for Environment and Water by 3pm next business day	
Root cause analysis completed within 10 working days	
Preventive actions implemented within agreed timeframes	

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

The Incident Response Index achieved in metropolitan, country and remote Aboriginal communities and overall for 2019-20, compared to 2018-19

System	IRI 2018-19	IRI 2019-20
Statewide (weighted combined metropolitan, country and remote Aboriginal communities)	96%	98%
Metropolitan	99%	98%
Country	97%	98%
Remote Aboriginal communities	67%	100%

Safe Drinking Water Act audit

In November 2019, we were audited under the *Safe Drinking Water Act 2011* (the Act), and successfully met all our legislative requirements. The successful outcome of the audit found:

- We operate in compliance with both the explicit requirements and the implied intent of the Act, Regulation, SA Health audit report template and the ADWG. Our people and contractors consistently demonstrated this compliance and understanding of the need for such vigilance.
- The audited sites and systems demonstrated improved compliance relative to the five previous audits (2014 to 2018) and showed positive responses to findings from those previous audits. The result was evidence of continual improvement in the spirit of the ADWG.
- The expertise of our people in water quality management was impressive and the auditor had confidence in how we discharged our responsibilities and showed our genuine organisational commitment to water quality management. The standard of our supporting systems was high and all 12 elements of the ADWG Framework were fully implemented.
- Final water verification monitoring and reporting continues to be leading nationally and was both drawing on international best practice methods and developing globally leading approaches.
- There were no significant non-compliances uncovered during the audit, that is, no findings that constituted an immediate potential threat to public health that required urgent action or reporting.

Overall, it was concluded that our water quality management planning was mature, embedded, extensive and comprehensive.

The audit result demonstrates the good level of collaboration across the business, with our contract partners, and SA Health.





Effective governance

Legislation

SA Water was established as a public corporation on 1 July 1995 under the *South Australian Water Corporation Act 1994*. Legislation guides SA Water's operations, the most significant include:

- *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*
- *Landscape South Australia Act 2019*.

Key regulators

The Essential Services Commission of South Australia is the state's independent economic regulator and so sets service standards and revenue caps for the essential water and sewerage services we deliver for our customers.

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

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

The Environment Protection Authority sets standards for acceptable discharge from wastewater treatment facilities and monitors our operations and activities to minimise impact on the environment.

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

The Board

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

The following Board directors, appointed by the Governor of South Australia, served during 2019-20:

- Andrew Fletcher AO, Chair
- John Bastian AM
- Sue Filby
- Janet Finlay
- Chris Ford (from 3 August 2019)
- Fiona Hele
- Ian Stirling (to 2 August 2019)
- Roch Cheroux (to 16 August 2019)
- David Ryan (from 11 November 2019).

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

A charter prepared by the Minister and the Treasurer, in consultation with the Board, was in place for 2019-20 in accordance with section 12 of the *Public Corporations Act 1993*. The charter guided the Board in seeking to balance community service with prudent commercial principles.

Directors' interests and benefits

For 2019-20, no director had an interest in any contract or proposed contract with SA Water, other than contracts in the ordinary course of business. No benefits were received by any director of SA Water by virtue of a contract that was made with SA Water, other than in normal course of business as set out in the financial statements.

Board committees

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

Governance, Finance and Risk Committee

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

Strategy, Policy and Innovation Committee

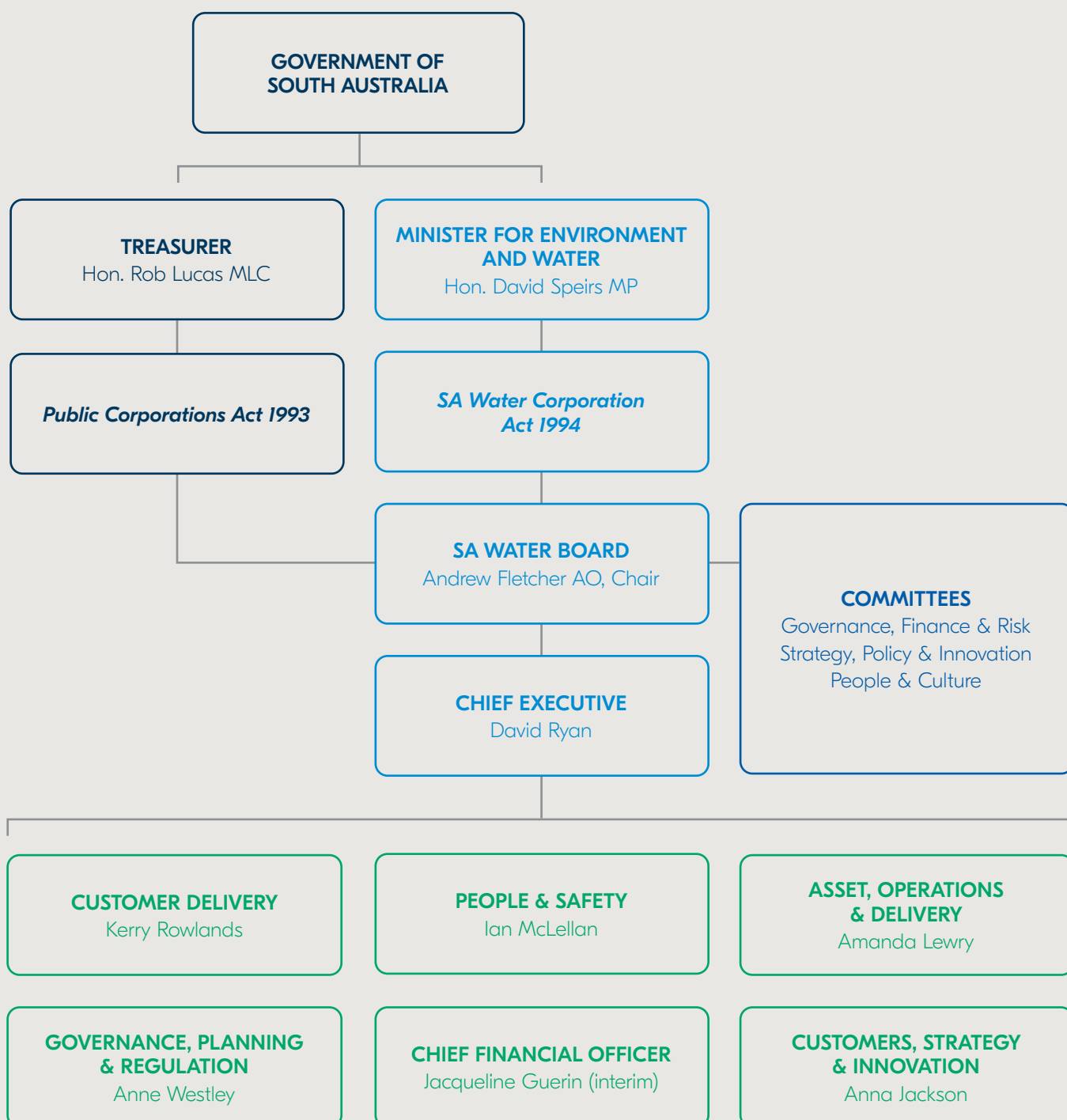
— assists the Board's oversight of our long-term strategy to ensure we remain a valuable, relevant and effective water and sewerage service provider with high levels of customer, community and stakeholder service and support.

People and Culture Committee

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

Organisation structure

As at 30 June 2020







Financial performance

Financial performance summary

Our financial performance for the year was strong. This was due to strong water sales resulting from warm and dry weather conditions and an increase in customer revenue from customer growth.

Instrumental to the federal government's Water for Fodder program was the production of 40 gigalitres of water at the Adelaide Desalination Plant, with operating costs fully recovered from the federal government.

Operating expenditure was well-managed with a continued focus on efficiencies and electricity expenses minimised through volume-managed purchases from the wholesale energy market.

We continue to focus on debt management strategies to manage interest rate risk and minimise expense.

The year-end profit before tax was \$315.7 million which is \$47.9 million higher than budget and \$43.2 million more than the previous year.

Revenue remained strong and was \$23.4 million higher than 2018-19 predominately due to:

- growth in the number of customers as a result of new housing development and suburban infill
- strong water sales due to warm and dry weather conditions through the year, albeit lower than 2018-19
- increased revenue funding to run the Adelaide Desalination Plant to produce 40 gigalitres during the year as part of the Water for Fodder program
- increased water and wastewater rates as a result of annual CPI price rises
- increased contributed assets arising from mains extensions contributions, infrastructure assets gifted to us from developers and capital contributions to us for work we perform.

Total expenses were \$19.7 million lower than 2018-19 predominately due to:

- interest and finance charges \$12.1 million lower due to external interest rate market conditions and prudent refinancing activities
- electricity expenditure dropping \$16.1 million primarily from significantly lower electricity wholesale prices. This excludes Adelaide Desalination Plant electricity costs required for the Water for Fodder program which were reimbursed by the federal government. Electricity expenditure in total increased \$4.1 million
- services and supplies reducing by \$24.5 million, predominately due to the adoption of the new lease accounting standard which saw some accommodation and vehicle leases costs classified as finance leases
- operational and services contracts increasing by \$7.6 million, predominately due to increased Adelaide Desalination Plant operating costs which is revenue funded through the Water for Fodder program
- employee benefits expense increasing \$3.7 million predominately due to increased wage expense commensurate with CPI and/or existing enterprise bargaining agreements
- depreciation increasing by \$1.5 million derived from asset carrying values before the year-end revaluation of infrastructure, plant and equipment assets.

Income tax expense increased by \$13 million as a result of increased profit; the effective tax rate of 29 per cent is the same as 2018-19.

Contributions to government

As a significant revenue contributor to the South Australian Government, for the broader benefit of the people of South Australia, an amount of \$481.6 million was paid in 2019-20. This saw \$64.4 million of business operating expenditure contributed to other government agencies and/or councils. Within interest expense, \$96.5 million was paid to the South Australian Financing Authority as guarantee fees and margins. Income tax equivalent of \$92.6 million and dividend of \$228.1 million was also paid.

Contributions to government	2019-20 actuals \$'000
External fees and charges	42,331
Contract services provided	1,321
Operational taxes and tax equivalents	20,753
Total contained within operating expenses	64,405
<i>As a percentage of total operating expenses</i>	<i>10.6%</i>
Interest expense — guarantee fees	92,413
South Australian Government Financing Authority margin fees	4,068
Additional interest paid to owner	96,481
Income tax equivalents	92,587
Dividends at 100% of profit after tax	228,087
Total amounts paid to government	481,560

Capital expenditure

During the year, we spent \$564.9 million on capital expenditure, with \$33.7 million spent on information technology and \$531.2 million on infrastructure.

Information technology investments continue to focus on improving outcomes for our customers and the business including:

- improved service channels and customer digital experience
- increased technology security and reliability
- increased business efficiency and employee experience.

We continue to focus on improving our water and wastewater infrastructure assets and invest in major infrastructure projects, all of which have a positive impact on our customers and/or the state. In 2019-20 these included:

- Zero Cost Energy Future with \$185.5 million spent towards the \$385 million project
- Northern Adelaide Irrigation Scheme, continued works and expenditure of \$30 million towards the \$155.6 million project
- Murray Bridge Wastewater Treatment Plant relocation with \$21.7 million spent towards the \$53.5 million project
- Kangaroo Creek Dam Safety works were completed with \$14.9 million spent as part of the \$119.9 million project
- Port Lincoln Sludge Upgrade works continued with \$10.7 million spent towards the \$18.9 million project.

Capital expenditure has been prudent with efficient expenditure through the year. It was contained within the Essential Services Commission of South Australia's allowable expenditure and/or state budget approvals.

Consultants

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

Consultant	Amount	Description/purpose
Between \$10,000 and \$50,000		
Ernst & Young	12,000.00	Disclosure support
Due Diligence Consultants Pty Ltd	36,393.81	Financial integrity and due diligence reporting
Greater than \$50,000		
Frontier	85,937.50	Advice on the inflation estimate for <i>Our Plan 2020-24</i>
TonyMac Consulting Pty Ltd	87,688.00	Advice on the preparation of analysis and framework for enterprise agreement negotiations
PricewaterhouseCoopers	146,251.45	Advice on updating methodology for measuring long-term viability
KPMG	181,839.80	Development of a discounted cashflow model and advice on key assumptions Seasonal water allocation revenue adjustments technical paper Review of the Zero Cost Energy Future project as a non-regulated service
AMCL Pty Ltd	219,146.65	Water main management independent review – provided management systems auditing expertise to conduct the water main breaks review for the SA Water Board
Total	769,257.21	

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



Supplementary reporting items

Fraud

There was one instance of alleged fraud reported in 2019-20. The matter is in the process of being investigated and was reported to the appropriate authorities.

Strategies implemented to control and prevent fraud

We have a zero tolerance to fraud or corruption and perform a range of activities to control and prevent fraud. Key to these activities are:

- senior executive oversight of our Fraud and Corruption Control Policy by the General Manager, Governance, Planning and Regulation
- investigations of all allegations of fraud made under the policy
- data analytic reviews conducted by Internal Audit of payroll and accounts payable transactions
- regular communications to our people on the need to report matters of concern and to act in accordance with SA Water's values, Ethical Standards Procedure and the Code of Ethics for the South Australian Public Sector.

Public interest disclosure

Pursuant to section 12 of the *Public Interest Disclosure Act 2018*, we have appointed responsible officers and published procedures for the receipt and management of public interest disclosures. We received one public interest disclosure-related allegation during 2019-20.

Summary of complaints

Feedback including complaints received from customers are an opportunity for us to build customer confidence and trust as well as improve our customer experience performance and operational efficiency.

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

In 2019-20, we registered 2.05 complaints per 1,000 customers. This has remained consistent when compared to 2.06 complaints per 1,000 customers in 2018-19. We continue to track below the national benchmark of 3.5, based on the Bureau of Meteorology's data for major utilities in its *National performance report 2018-19: urban water utilities*.

Together with the Water Services Association of Australia and other Australian water utilities, we are reviewing practices to ensure we are effectively capturing customer complaints resolved at first contact to continue to generate valuable insights and improve overall customer experiences.

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

In 2019-20, 184* complaints were made about us to the Energy and Water Ombudsman of South Australia (EWOSA) on a range of issues. Costs incurred for high water use continued to top the list of escalated concerns.

When compared to 2018-19, EWOSA complaints have trended downwards, with a decrease of five per cent recorded.

During 2019-20, 82.5 per cent of customers who had a complaint handled by our Customer Advocacy and Resolution team indicated they were satisfied with our complaints handling process.

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

In response to customer feedback, we continue to implement changes including:

- providing information about maintaining healthy sewers for customers who have wastewater incidents where non-flushables or fats have been found
- providing hand sanitiser with boxed water for customers experiencing a temporary water service interruption during the state's response to the COVID-19 pandemic.

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



PRIME MINISTER

The Hon. Steven Marshall MP
Premier of South Australia
GPO Box 2343
ADELAIDE SA 5001

Dear Premier Marshall

Thank you and the South Australian Government for agreeing to provide support to drought affected communities. I write to finalise the arrangements for the production of 100 gegalitres of water from the Adelaide Desalination Plant and the release of an equivalent amount to support drought-affected farmers (attached).

The current drought is having a devastating impact on farmers and agricultural communities in the Murray–Darling Basin and beyond. With the support of South Australia we can provide water to irrigation farmers in the southern Murray–Darling Basin through the Australian Government's *Water for Fodder* program. This will increase the amount of fodder and pasture available to support farming communities across the country while supporting farmers and irrigators in the Basin.

I have asked the Hon. David Littleproud MP, Minister for Water Resources, Drought, Rural Finance, Natural Disaster and Emergency Management to work with his South Australian counterpart, the Hon. David Speirs MP, Minister for Environment and Water, to finalise the delivery details and funding for the program. I expect that the *Water for Fodder* program will be opened and making water available to irrigators before the end of the year.

Again, I would like to reiterate my appreciation of the support of the South Australian government in partnering with the Commonwealth to deliver this innovative solution that will assist drought affected communities.

Yours sincerely

The Hon Scott Morrison MP

cc. The Hon. David Littleproud MP, Minister for Water Resources, Drought, Rural Finance, Natural Disaster and Emergency Management

The Hon. David Speirs MP, Minister for Environment and Water

MINUTE



Government
of South Australia

David Speirs MP

19EW0007462

TO: CHAIR, SA WATER BOARD

RE: INCREASING PRODUCTION FROM THE ADELAIDE DESALINATION PLANT

Pursuant to section 6 of the *Public Corporations Act 1993*, and sections 6 and 7(2)(f) of the *South Australian Water Corporation Act 1994*, the South Australian Water Corporation (SA Water) is subject to the control and direction by its Minister, and has the functions conferred on it by its Minister.

The *South Australian Water Corporation Act 1994* is committed to the Minister for Environment and Water (the Minister) by way of Gazettal notice dated 22 March 2018 (p. 1259).

I consider it appropriate, in the interests of transparency, to direct SA Water to proceed with increasing production from the Adelaide Desalination Plant to enable 40 gigalitres of water to be traded from SA Water's Adelaide Metropolitan River Murray Licence in 2019-2020, consistent with the agreement reached between the Commonwealth and South Australian Governments (Attachment 1).

As outlined in Attachment 1, I confirm that this arrangement will not result in a net cost to SA Water and that this will be independently reviewed and verified by the Essential Services Commission of South Australia. The Commonwealth Government has agreed to meet all costs associated with the operation of its *Water for Fodder* program.

Additional matters requiring agreement between SA Water and the South Australian Government in fulfilling this instruction will be defined, as required, through an agreement between the Department for Environment and Water (DEW) and SA Water.

A handwritten signature in blue ink, appearing to read "David Speirs", followed by a checkmark.

DAVID SPEIRS MP

Minister for Environment and Water

Date: 02/12/2019.

cc: Chief Executive, SA Water

Attachment 1: Letter to Premier Steven Marshall from Prime Minister Scott Morrison, received 15 November 2019

DIRECTION TO THE SOUTH AUSTRALIAN WATER CORPORATION

PURSUANT TO SECTION 6 OF THE PUBLIC CORPORATIONS ACT 1993

BACKGROUND

1. Pursuant to section 6 of the *Public Corporations Act 1993*, and sections 6 and 7(2)(f) of the *South Australian Water Corporations Act 1994*, the South Australian Water Corporation (**SA Water**) is subject to control and direction by its Minister, and has the functions conferred on it by its Minister.
2. The *South Australian Water Corporation Act 1994* and the *Water Industry Act 2012* are committed to the Minister for Environment and Water (**the Minister**) as per *Gazettal* notice dated 22 March 2018 (p. 1256).
3. The *Water Industry Act 2012* provides for the regulation of prices for water and sewerage retail services by declaring the water industry to constitute a regulated industry for the purposes of the *Essential Services Commission Act 2002* and authorising the Essential Services Commission of South Australia (**the Commission**) to make a determination under the *Essential Services Commission Act 2002* regulating prices, conditions relating to prices, and price-fixing factors for water and sewerage retail services.
4. In making such a determination, the Commission must comply with the requirements of any pricing order issued by the Treasurer under section 35 of the *Water Industry Act 2012*.
5. The Treasurer issued a pricing order under section 35 of the *Water Industry Act 2012* (**the pricing order**) on 28 October 2018 which applies to a determination made by the Commission in respect of drinking water and sewerage retail services provided by SA Water for the four year period commencing 1 July 2020 and ending 30 June 2024 (**the third regulatory period**).
6. As part of the pricing order, the Treasurer has required that any determination of the Commission in respect to such services allow SA Water to recover:
 - a. the efficient cost of assets acquired (or to be acquired) after 1 July 2016, which are required to support activities that SA Water is required to provide in accordance with a direction under section 6 of the *Public Corporations Act 1993*;
 - b. costs relating to externalities (including water planning and management) attributable to and payable by SA Water in accordance with the law, including a direction under section 6 of the *Public Corporations Act 1993*; and
 - c. such costs (less any relevant contributions to such costs that it receives) that are attributable to activities that SA Water is required to provide in accordance with a direction under section 6 of the *Public Corporations Act 1993* and are either:
 - i. specified in the relevant direction, or if not specified,

ii. determined by the Commission to be efficient.

7. The Minister considers it appropriate, in the interests of transparency, to direct SA Water, over the course of the third regulatory period, to:
- a. provide certain services, in addition to the services it is required to provide pursuant to section 7 of the *South Australian Water Corporation Act 1994*, and the Charter for SA Water;
 - b. purchase renewable energy certificates or carbon offsets for the purpose of operating the Adelaide Desalination Plant;
 - c. maintain state-wide pricing in respect of the drinking water and sewerage retail services it provides to customers;
 - d. continue to contribute to water planning and management charges;
 - e. continue to annually reimburse the Minister in respect of fees paid to the Valuer-General for copies of the valuation rolls;
 - f. flush the Torrens Lake to prevent algae green-blue blooms in a manner that is consistent with its water licence for the prescribed water resource of the Western Mount Lofty Ranges (WMLR) that will apply from 1 July 2020;
 - g. use surplus water to meet environmental water obligations in a manner that is consistent with its water licences for the River Murray Prescribed Watercourse that will apply from 1 July 2020;
 - h. improve the security and water supply on Kangaroo Island through the construction of a 2 megalitres per day desalination plant and associated delivery infrastructure;
 - i. commence the upgrade of the water supply of SA Water customers in regional areas to potable water during the third regulatory period, with the intent that the remaining regional areas be upgraded in a future regulatory period(s);
 - j. continue to provide services for potable water and wastewater supplies to aboriginal communities;
 - k. progressively assume responsibility for the Tea Tree Gully community wastewater management scheme with the agreement of the City of Tea Tree Gully (with the intent that from transfer of the relevant assets to SA Water, the assets, and their operation and upgrade, will be treated as part of SA Water's sewerage retail services);
 - l. continue to meet community and owner expectations on water reticulation main performance; and
- the costs of which may be recovered by SA Water in accordance with the terms of the pricing order.
8. The Minister intends that, from 1 July 2020, this Direction will revoke and replace the previous Direction made to SA Water pursuant to section 6 of the *Public*

Corporations Act 1993 on 25 June 2015 and published on the Gazette on 2 July 2015 (p. 3367).

9. This Direction may be revoked and replaced by a subsequent direction pursuant to section 6 of the *Public Corporations Act 1993*.

DIRECTION

I, David Speirs, Minister for Environment and Water, direct SA Water to purchase or provide the following services, facilities and contributions from 1 July 2020 and until further notice, subject to and in accordance with the following provisions:

A. Emergency Management Services

Emergency engineering functional services as required for compliance with the State Emergency Management Plan prepared by the State Emergency Management Committee under the *Emergency Management Act 2004*, up to the following cost in each financial year of the third regulatory period:

2020-21	2021-22	2022-23	2023-24
\$625 000	\$641 000	\$657 000	\$673 000

The South Australian Government will make the following contributions to SA Water in relation to such costs in each financial year of the third regulatory period:

2020-21	2021-22	2022-23	2023-24
\$625 000	\$641 000	\$657 000	\$673 000

B. Government Radio Network Services

Services required for SA Water's ongoing connection to and participation in the South Australian Government Radio Network, up to the following cost in each financial year of the third regulatory period:

2020-21	2021-22	2022-23	2023-24
\$618 000	\$633 000	\$649 000	\$665 000

The South Australian Government will make the following contributions to SA Water in relation to such costs in each financial year of the third regulatory period:

2020-21	2021-22	2022-23	2023-24
\$618 000	\$633 000	\$649 000	\$665 000

C. Fluoridation Services

Services required for:

- (i) the continuation of the fluoride dosing program in metropolitan Adelaide and the existing country dosing installations;
- (ii) the construction and operation of any new fluoride dosing installations;

as recommended or agreed by or on behalf of the Chief Executive, Department for Health and Wellbeing, from time to time.

D. Purchase of renewable energy or carbon offsets for the Adelaide Desalination Plant

SA Water must purchase applicable renewable energy certificates (RECs) for the purposes of the operation and maintenance of the Adelaide Desalination Plant and associated infrastructure, or otherwise fully offset the carbon impact of that operation and maintenance, sufficient to maintain South Australia's commitment at clause 17 of the *Implementation Plan for Augmentation of the Adelaide Desalination Plant (100 gigalitres per annum)*, *National Partnership Agreement on Water for the Future*.

E. State-wide Pricing Facility

SA Water must, in fixing standard terms and conditions governing the provision of services pursuant to section 36 of the *Water Industry Act 2012*, set such standard terms and conditions relating to the prices of, or tariffs for, the provision of drinking water and sewerage retail services it provides on the basis of state-wide pricing, i.e. the tariffs or tariff components for such services must be the same, or result in a similar outcome, for any customer in the class of customer to which the terms and conditions are expressed to apply, irrespective of the customer's location.

The South Australian Government will make the following contributions to SA Water in each financial year of the third regulatory period in order to support the lowest levels of state-wide standard terms and conditions relating to price as possible:

- (i) In relation to SA Water's drinking retail services:

2020-21	2021-22	2022-23	2023-24
\$67 416 173	\$67 416 173	\$67 416 173	\$67 416 173

- (ii) In relation to SA Water's sewerage retail services:

2020-21	2021-22	2022-23	2023-24
\$40 162 827	\$40 162 827	\$40 162 827	\$40 162 827

F. Water Planning and Management Charges Contribution

SA Water must make the following contributions to the Department for Environment and Water in each financial year of the third regulatory period in order to support water planning and management activities:

2020-21	2021-22	2022-23	2023-24
\$31 556 000	\$32 345 000	\$33 154 000	\$33 983 000

G. Annual reimbursement of fees paid for valuation roll

SA Water must make the following contributions to the Minister in each financial year of the third regulatory period in order to reimburse the Minister for fees paid to the Valuer-General pursuant to section 21(a) of the *Valuation of Land Act 1971* for a copy of the valuation roll or any addition, correction or amendment to the roll:

2020-21	2021-22	2022-23	2023-24
\$5 476 000	\$5 613 000	\$5 753 000	\$5 897 000

H. Flushing of Torrens Lake

Subject to the availability of water from prescribed water resources, SA Water must provide water as necessary to meet annual dilution flow requirements for Torrens Lake (up to a total of 2.5 gigalitres per annum), as part of SA Water's contribution of up to 16.5 gigalitres under the existing environmental water provisions of the WMLR Water Allocation Plan. SA Water must also make the following contributions to associated operating costs:

2020-21	2021-22	2022-23	2023-24
\$600 000	\$615 000	\$630 000	\$646 000

I. Environmental Watering Volume

SA Water must provide the full environmental watering volume required in eligible years under clause S-IV(ii) of Schedule 1 of the *Implementation Plan for Augmentation of the Adelaide Desalination Plant (100 gigalitres per annum)*, *National Partnership Agreement on Water for the Future* (up to 12 gigalitres), prior to trading to third parties any unused allocations obtained on account of water access entitlements on its South Australian River Murray licences.

In order of priority, this environmental contribution must come from allocations obtained on account of the following water access entitlements held by SA Water: Class 3 (High Security); Class 6; and then Class 2.

J. Improving the security and water supply on Kangaroo Island

To construct a 2 megalitres per day desalination plant and associated delivery infrastructure (including energy supply) on Kangaroo Island to improve the security and supply of water on Kangaroo Island.

SA Water will fund capital expenditure of up to \$28 million over the four years to 30 June 2024 (as per the table below):

2020-21	2021-22	2022-23	2023-24
\$28 000 000	\$0	\$0	\$0

Additional capital expenditure of \$19.8 million is to be funded through South Australian and Commonwealth Government contributions.

SA Water will also fund the associated operating expenditure (as per the table below):

2020-21	2021-22	2022-23	2023-24
\$0	\$372 000	\$1 144 000	\$1 173 000

SA Water's construction and funding of the desalination plant and associated delivery infrastructure are conditional on securing a Commonwealth Government contribution of \$14.9 million.

K. Upgrading the water supply of SA Water customers in regional areas

To upgrade the water supply of SA Water customers in certain regional areas to potable water.

During the third regulatory period, SA Water must upgrade the water supply to potable water in the regional areas of Yunta, Oodnadatta, Maree, Terowie, Marla, Manna Hill (and the associated filling station at Peterborough).

SA Water will fund capital expenditure of up to \$40.5 million over the third regulatory period together with associated operating costs not exceeding \$5.3 million (as per the tables below):

(i) In relation to SA Water's capital expenditure:

2020-21	2021-22	2022-23	2023-24
\$9 743 000	\$9 986 000	\$10 236 000	\$10 492 000

(ii) In relation to SA Water's operating expenditure:

2020-21	2021-22	2022-23	2023-24
\$538 000	\$1 006 000	\$1 694 000	\$1 993 000

L. Aboriginal communities serviced by SA Water through a CSO funded by Government

Services required for the provision of potable water and wastewater supplies to the communities of Amata, Davenport, Gerard, Indulkana, Kalka, Kaltjiti, Kanpi, Koonibba, Mimili, Murputja, Nepabunna, Nyapari, Oak Valley, Pipalyatjara, Point Pearce, Pukatja, Raukkan, Umoona, Umuwa, Watinuma, Yatala and Yunyarinyi up to the following operating cost in each financial year of the third regulatory period:

2020-21	2021-22	2022-23	2023-24
\$10 899 000	\$10 809 000	\$10 435 000	\$10 618 000

The South Australian Government will make the following contributions to SA Water in relation to such costs in each financial year of the third regulatory period:

2020-21	2021-22	2022-23	2023-24
\$8 383 000	\$8 594 000	\$8 809 000	\$9 029 000

M. Tea Tree Gully Community Wastewater Management System

With the agreement of the City of Tea Tree Gully (and on terms and conditions acceptable to SA Water), SA Water must:

- (i) provide sewerage services to properties serviced by the Tea Tree Gully Community Wastewater Management System (the Properties), in a staged manner over the third regulatory period; and
- (ii) acquire assets currently owned and operated by the City of Tea Tree Gully Council for the provision of sewerage services to Properties where they meet SA Water standards or can be upgraded to meet standards, and where the assets currently owned and operated by the City of Tea Tree Gully cannot provide the services, SA Water must make prudent and efficient investments to provide the services to the Properties.

During the third regulatory period, SA Water will fund up to \$64.1 million of capital expenditure progressively as it acquires, upgrades or constructs assets together with associated operating costs not exceeding \$963,000 (as per the tables below):

- (i) In relation to SA Water's capital expenditure:

2020-21	2021-22	2022-23	2023-24
\$3 834 000	\$23 376 000	\$27 385 000	\$9 471 000

(ii) In relation to SA Water's operating expenditure:

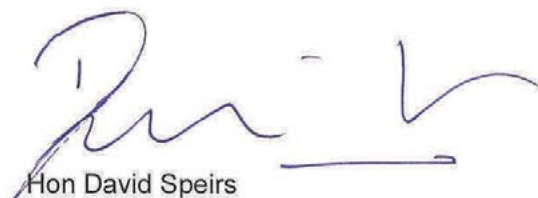
2020-21	2021-22	2022-23	2023-24
\$82 000	\$160 000	\$328 000	\$393 000

These services and assets will form part of SA Water's sewerage retail services from 1 July 2020 or a date of their provision and acquisition, whichever is later.

N. Continue to meet community and owner expectations on water reticulation main performance

SA Water will fund up to \$155.5 million of capital expenditure to meet community and owner expectations on water main performance as follows:

2020-21	2021-22	2022-23	2023-24
\$37 288 000	\$39 072 000	\$39 066 000	\$40 043 000



Hon David Speirs

MINISTER FOR ENVIRONMENT AND WATER

28/05/2020

Appendices

Audited financial statements

South Australian Water Corporation
annual financial statements for the year
ended 30 June 2020

INDEPENDENT AUDITOR'S REPORT**Government of South Australia**

Auditor-General's Department

Level 9
 State Administration Centre
 200 Victoria Square
 Adelaide SA 5000
 Tel +618 8226 9640
 Fax +618 8226 9688
 ABN 53 327 061 410
 audgensa@aucit.sa.gov.au
 www.audit.sa.gov.au

**To the Chair
 South Australian Water Corporation**

Opinion

I have audited the financial report of South Australian Water Corporation for the financial year ended 30 June 2020.

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 2020, its financial performance and its cash flows for the year then ended in accordance with relevant Treasurer's Instructions issued under the provisions of the *Public Finance and Audit Act 1987* and Australian Accounting Standards.

The financial report comprises:

- a Statement of Comprehensive Income for the year ended 30 June 2020
- a Statement of Financial Position as at 30 June 2020
- a Statement of Changes in Equity for the year ended 30 June 2020
- a Statement of Cash Flows for the year ended 30 June 2020
- notes, comprising significant accounting policies and other explanatory information
- a Certificate from the Chair, the Chief Executive and the Chief Financial Officer.

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 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* (including Independence Standards) have been met.

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

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

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

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

Auditor's responsibilities for the audit of the financial report

As required by section 31(1)(b) of the *Public Finance and Audit Act 1987* and section 32(4) of the *Public Corporations Act 1993*, I have audited the financial report of South Australian Water Corporation for the financial year ended 30 June 2020.

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, but not for the purpose of expressing an opinion on the effectiveness of the South Australian Water Corporation's internal control

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



Andrew Richardson

Auditor-General

18 September 2020



**SOUTH AUSTRALIAN
WATER CORPORATION**
A.B.N. 69 336 525 019

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.


.....
David Ryan

Chief Executive

Date 14/09/2020


.....
Andrew Fletcher

Chair

Date 14/09/20


.....
Jacqueline Guerin

Chief Financial Officer

Date 14/09/2020

	Notes	2020 \$'000	2019 \$'000
Income			
Revenue from ordinary activities	4	1,605,205	1,568,608
Other income	5	736	13,861
Total income		1,605,941	1,582,469
Expenses			
Depreciation and amortisation expense	6	(362,047)	(360,594)
Borrowing costs	6	(317,623)	(329,766)
Electricity expense		(86,772)	(82,600)
Services and supplies	6	(157,250)	(181,765)
Operational and service contracts		(226,328)	(218,756)
Employee benefits expense	6	(140,248)	(136,508)
Total expenses		(1,290,268)	(1,309,989)
Profit before income tax equivalents		315,673	272,480
Income tax expense	7	(92,587)	(79,637)
Profit after income tax equivalents		223,086	192,843
Other comprehensive income			
Items that will not be reclassified to net result			
(Loss)/gain on revaluation of infrastructure, plant and equipment assets	29(a)	(1,162,845)	116,837
Income tax relating to items of other comprehensive income	7(c)	355,497	(32,117)
Other comprehensive income for the year, net of tax		(807,348)	84,720
Total comprehensive result		(584,262)	277,563
Total comprehensive result for the year is attributable to:			
The SA Government as owner		(584,262)	277,563

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

	Notes	2020 \$'000	2019 \$'000
ASSETS			
Current assets			
Cash and cash equivalents	26	4,844	2,772
Receivables	8	223,273	233,886
Inventories	9	8,928	8,498
Other current assets	10	11,456	12,761
Total current assets		248,501	257,917
Non-current assets			
Finance lease receivable		2,705	-
Deferred tax assets	11	75,368	40,131
Intangible assets	12	175,563	155,603
Infrastructure, plant and equipment	13	13,173,450	14,212,169
Right-of-use assets	15	186,866	-
Other non-current assets	16	3,615	221
Total non-current assets		13,617,567	14,408,124
Total assets		13,866,068	14,666,041
LIABILITIES			
Current liabilities			
Payables	17	167,389	225,480
Financial liabilities/borrowings	18	57,286	39,645
Tax liabilities	19	10,444	6,785
Provisions	20	21,064	17,370
Other current liabilities	21	16,694	15,640
Total current liabilities		272,877	304,920
Non-current liabilities			
Payables		2,558	2,519
Financial liabilities/borrowings	22	7,073,955	6,671,551
Deferred tax liabilities	23	1,343,275	1,677,241
Provisions	24	36,644	33,960
Other non-current liabilities	25	342,323	352,062
Total non-current liabilities		8,798,755	8,737,333
Total liabilities		9,071,632	9,042,253
Net assets		4,794,436	5,623,788
EQUITY			
Contributed equity		213,372	204,210
Asset revaluation surplus	29(a)	4,299,115	5,111,844
Retained earnings	29(b)	281,949	307,734
Total equity		4,794,436	5,623,788

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

		Contributed equity	Asset revaluation surplus	Retained earnings	Total
	Notes	\$'000	\$'000	\$'000	\$'000
Balance at 1 July 2019		204,210	5,111,844	307,734	5,623,788
Adjustment on initial adoption of AASB 16	29	-	-	(26,165)	(26,165)
Deferred income tax	7(c)	-	-	7,871	7,871
Restated total equity at the beginning of the financial year		204,210	5,111,844	289,440	5,605,494
Profit for the year		-	-	223,086	223,086
Gain/(loss) on revaluation on infrastructure, plant and equipment assets	29	-	(1,162,845)	-	(1,162,845)
Transfer to retained profits on disposal	29	-	(2,869)	-	(2,869)
Transfer from asset revaluation surplus	29	-	-	2,869	2,869
Income tax relating to components of other comprehensive income	7(c)	-	352,985	(5,359)	347,626
Total comprehensive result for the period		-	(812,729)	220,596	(592,133)
Transactions with the SA Government in their capacity as owners:					
Contributions of equity*		9,162	-	-	9,162
Dividends provided for or paid	33	-	-	(228,087)	(228,087)
		9,162	-	(228,087)	(218,925)
Balance at 30 June 2020		213,372	4,299,115	281,949	4,794,436

* In 2019/20, SA Water received \$7.0m from the SA Government, to partially fund the Northern Adelaide Irrigation Scheme (NAIS) project, after completing the third milestone of the NAIS project. In addition, SA Water received a further \$2.162m as a contribution of equity from the SA Government to partially fund the opening of South Australian reservoirs for recreational use. In accordance with Interpretation 1038 Contributions by Owners made to Wholly-Owned Public Sector Entities, these payments have been recognised as contributed equity.

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

		Contributed equity	Asset revaluation surplus	Retained earnings	Total
	Notes	\$'000	\$'000	\$'000	\$'000
Balance at 1 July 2018		185,110	5,049,757	271,749	5,506,616
Adjustment on initial adoption of AASB 9		-	-	(131)	(131)
Deferred income tax		-	-	39	39
Restated total equity at the beginning of the financial year		185,110	5,049,757	271,657	5,506,524
Profit for the year		-	-	192,843	192,843
Gain/(loss) on revaluation on infrastructure, plant and equipment assets	29	-	116,837	-	116,837
Transfer to retained profits on disposal	29	-	(22,594)	-	(22,594)
Transfer from asset revaluation surplus	29	-	-	22,594	22,594
Income tax relating to components of other comprehensive income	7(c)	-	(32,156)	-	(32,156)
Total comprehensive result for the period		-	62,087	215,437	277,524
Transactions with the SA Government in their capacity as owners:					
Contributions of equity*		19,100	-	-	19,100
Dividends provided for or paid	33	-	-	(179,360)	(179,360)
		19,100	-	(179,360)	(160,260)
Balance at 30 June 2019		204,210	5,111,844	307,734	5,623,788

* In 2018/19, SA Water received \$19.1m from the SA Government, to partially fund the Northern Adelaide Irrigation Scheme (NAIS) project, after completing the second milestone of the NAIS project. In accordance with Interpretation 1038 Contributions by Owners made to Wholly-Owned Public Sector Entities, this has been recognised as contributed equity.

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

	Notes	2020 \$'000	2019 \$'000
Cash flows from operating activities			
Receipts from customers		1,514,872	1,463,748
Payments to suppliers and employees		(730,339)	(711,280)
Interest received		132	109
Receipts from community service obligations		165,846	139,592
Receipts from contributions		8,160	11,123
Receipts from government grants		35	42
Borrowing costs paid		(337,639)	(326,992)
Income tax equivalents paid		(102,636)	(100,425)
Net cash inflow from operating activities	27	518,431	475,917
Cash flows from investing activities			
Payments for construction and purchase of infrastructure, plant and equipment		(545,314)	(513,629)
Payments for intangible assets		(33,760)	(34,751)
Proceeds from sale of intangible assets		501	13,248
Proceeds from sale of infrastructure, plant and equipment		585	348
Proceeds from sale of renewable energy certificates		2,460	7,877
Net cash (outflow) from investing activities		(575,528)	(526,907)
Cash flows from financing activities			
Proceeds from borrowings		1,530,600	1,314,400
Repayment of borrowings		(1,225,800)	(1,093,200)
Proceeds from equity contributions		9,162	19,100
Dividends paid	33	(228,087)	(179,360)
Repayments of finance lease liability		(26,706)	(11,144)
Net cash inflow from financing activities		59,169	49,796
Net increase/(decrease) in cash and cash equivalents		2,072	(1,194)
Cash and cash equivalents at the beginning of the financial year		2,772	3,966
Cash and cash equivalents at end of period	26	4,844	2,772

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*.

(a) *Basis of preparation*

These general purpose financial statements have been prepared in accordance with relevant Australian Accounting Standards and comply with the Treasurer's Instructions and Accounting Policy Statements promulgated under provisions of the *Public Finance and Audit Act 1987*, as well as complying with 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. Where the Treasurer's Instructions are more prescriptive than the equivalent Australian Accounting Standards, SA Water has applied the Treasurer's Instructions in the application of accounting frameworks.

The financial statements are prepared based on a 12 month reporting period and presented in Australian currency/ dollars. The historical cost convention is used unless a different measurement basis is specifically disclosed in the note associated with the item measured.

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, derivative financial instruments and renewable energy certificates which are measured on a fair value basis in accordance with the valuation policy applicable.

1 Summary of significant accounting policies (continued)

(a) *Basis of preparation (continued)*

Change in accounting policy

Adoption of new accounting standards

The Corporation has applied the following standard for the first time in the annual reporting period ended 30 June 2020:

AASB 16 Leases

AASB 16 Leases sets out a comprehensive model for lease accounting that addresses recognition, measurement, presentation and disclosure of leases. AASB 16 replaces *AASB 117 Leases* and related interpretations. It is effective from 1 July 2019 and has resulted in adjustments to the amounts recognised in the financial statements.

AASB 117 only required the recognition of an asset and liability in relation to finance leases. AASB 16 applies a comprehensive model to all leases. Applying AASB 16 has resulted in leases previously classified as operating leases now recognised as right-of-use assets and lease liabilities in the Statement of Financial Position. Under AASB 117 operating lease payments were recognised as an expense under Services and Supplies. AASB 16 replaces this with depreciation expense that represents the use of the right-of-use asset and borrowing costs that represent the cost associated with financing the right-of-use asset.

AASB 117 only required the finance lease liability to include fixed payments. That portion of the lease payment which was not fixed was not included in the calculation of the lease liability but recognised as a contingent rental expense. Under AASB 16 the measurement of the lease liability includes both fixed payments and variable lease payments that depend on an index or rate. As a consequence of this a contingent rental expense does not get recognised under AASB 16 as it is now included as part of the calculation of the lease liability.

Lease incentives (e.g. rent free period) are recognised as part of the measurement of the right-of-use asset and lease liability whereas under AASB 117 they resulted in the recognition of a lease incentive liability which was amortised as a reduction in rental expense on a straight-line basis.

Impact on Lessee Accounting

In accordance with AASB 16 the following will need to be recognised for all leases except for short-term leases and leases of low value assets:

- a right-of-use asset and lease liability in the statement of financial position which is initially measured at the present value of future lease payments;
- depreciation of right-of-use assets and interest on lease liabilities in the statement of comprehensive income; and
- the lease payment separated into a principal portion and interest expense. These being recognised in the statement of cash flows as payments from financing and operating activities respectively.

Impact on Lessor Accounting

AASB 16 does not change substantially how a lessor accounts for leases. Under AASB 16, a lessor continues to classify leases as either finance leases or operating leases and account for those two types of leases differently.

Under AASB 16, an intermediate lessor accounts for the head lease and the sublease as two separate contracts. The intermediate lessor is required to classify the sublease as a finance or operating lease by reference to the right-of-use asset arising from the head lease (and not by reference to the underlying asset as was the case under AASB 117).

1 Summary of significant accounting policies (continued)

(a) *Basis of preparation (continued)*

Change in accounting policy (continued)

Accounting policies on transition

As a lessee

Leases classified as operating leases under AASB 117

AASB 16 includes a number of practical expedients that must be adopted on transition to the application of the new accounting standard. In accordance with *Treasurer's Instructions (Accounting Policy Statements)* the Corporation is mandated to adopt certain choices that are included in these practical expedients. The Corporation has therefore adopted the following transitional accounting policies:

- The partial retrospective option in AASB 16 whereby the cumulative effect of initially applying the Standard is recognised at 1 July 2019. The comparatives for 30 June 2019 have not been restated.
- At 1 July 2019, AASB 16 has only been applied to contracts that were previously identified as containing a lease under AASB 117 and related interpretations.
- The initial measurement of the lease liability has been determined as the present value of the remaining lease payments discounted using the relevant incremental borrowing rate as at 1 July 2019. The average weighted incremental borrowing rate for this purpose was 3.42%.
- The initial measurement of right-of-use assets has been calculated at either their carrying amount as if AASB 16 had been applied since the commencement date of the lease, discounted using the incremental borrowing rate at 1 July 2019 or an amount equal to the lease liability on transition adjusted for prepaid or accrued lease payments and lease incentive liabilities and assets.
- The initial measurement of lease liabilities and right-of-use assets excludes all leases that end by 30 June 2020, except for vehicles leased from the South Australian Government Financing Authority (SAFA).
- In accordance with *AASB 112 Income Taxes* a temporary difference has been recognised for the right-of-use asset and lease liability. A deferred tax liability (DTL) has been recognised for the right-of-use asset. For income tax purposes a deduction can only be claimed as the payments are made for the associated lease liability. The depreciation expense that is recognised for these assets cannot be claimed as an income tax deduction. A deferred tax asset (DTA) has been recognised for the lease liability as a deduction can be claimed in the future when the lease payments have been made.

Leases classified as finance leases under AASB 117

- The practical expedient has been adopted which allows the new leasing standard to be applied to leases that were previously identified as finance leases under AASB 117. In accordance with AASB 16, on initial application no reassessment is required as to whether a contract contains a lease.
- The Corporation has previously entered into Build Own Operate Transfer (BOOT) agreements for a number of infrastructure facilities. BOOT agreements include the requirement for an ongoing availability tariff, as escalated over time by certain indices, for the term of the agreement. In accordance with the requirements of AASB 117, these leases were classified as finance leases. Under the transitional provisions of AASB 16 the carrying amount of the right-of-use asset and the lease liability at July 2019 were determined to be the carrying amount of the lease infrastructure asset and lease liability recognised at 30 June 2019 by applying AASB 117.
- Post initial recognition of a lease under the transition provisions, where there is a change to the lease rate or index, the lease liability is required to be remeasured.

1 Summary of significant accounting policies (continued)

(a) *Basis of preparation (continued)*

Change in accounting policy (continued)

As a lessor

The Corporation subleases two floors of its office building located in Adelaide CBD. Under AASB 117, the head lease and sublease contracts were classified as operating leases. Whether a sublease was classified as a finance or operating lease was based on the useful life of the underlying asset. On transition to AASB 16, the Corporation is required to reassess the classification of the subleases as an operating or finance lease by reference to the right-of-use asset arising from the head lease. For one of the subleases, the term aligns to the term of the head lease and therefore this is classified as a finance lease. For the remaining sublease, the term differs from the head lease and therefore it retains its classification as an operating lease.

In accordance with AASB 16 where the sublease is classified as a finance lease, the Corporation must derecognise the right-of-use asset relating to the head lease that has been transferred to the sublessee and recognise a receivable at an amount equal to the net investment in the lease. The net investment in the lease being the sum of the lease payments receivable from the lessee discounted using the incremental borrowing rate applicable to the remaining term of the lease.

On transition to AASB 16, any difference between that portion of the right-of-use asset that is derecognised and the finance lease receivable is recognised in retained earnings.

A deferred tax liability has been recognised for the finance lease receivable as the payments received will be treated as assessable for income tax purposes.

Ongoing accounting policies

The *Treasurer's Instructions (Accounting Policy Statements)* specify required accounting policies for public authorities in applying AASB 16. These requirements are reflected in the Corporation's accounting policies as follows:

- AASB 16 is not applied to leases of intangible assets.
- Right-of-use assets and lease liabilities are not recognised for leases of low value assets, being assets which have a value of \$15 000 or less, nor short-term leases, being those with a lease term of 12 months or less.
- The Corporation, in the capacity of a lessee, does not include non-lease components in lease amounts.
- Right-of-use assets are subsequently measured applying a cost model.

1 Summary of significant accounting policies (continued)

(a) *Basis of preparation (continued)*

Change in accounting policy (continued)

The impact on the financial statements on transition to the adoption of the standard is as follows:

	2019 \$'000
Assets	
Infrastructure, plant and equipment	(90,241)
Right-of-use assets	181,738
Deferred tax assets	36,556
Finance lease receivable	4,403
Prepayments	(9)
Lease incentive asset	(280)
Total Assets	132,167
Liabilities	
Lease liabilities	120,784
Deferred tax liabilities	28,686
Lease incentive liabilities	(576)
Unearned income	(80)
Lease make good provision	1,647
Total Liabilities	150,461
Equity	
Retained earnings	(18,294)
Total Equity	(18,294)

1 Summary of significant accounting policies (continued)

(a) *Basis of preparation (continued)*

Change in accounting policy (continued)

The total impact on the Corporation's retained earnings at 1 July 2019 is as follows:

	\$'000
Closing retained earnings 30 June 2019- AASB 117	307,734
Initial recognition - right-of-use asset	(25,511)
Derecognition of right-of-use asset - sublease	(657)
Deferred tax liability - right-of-use asset	(27,449)
Deferred tax liability - finance lease receivable	(1,321)
Deferred tax asset - lease liability	36,236
Derecognition of DTL for lease incentive asset	84
Derecognise DTA for deferred rent incentive	(173)
Recognition of prepayment for land right-of-use asset	3
Deferred tax asset - lease make good provision	494
Opening retained earnings 1 July 2019 - AASB 16	289,440

The reconciliation of operating lease commitments at 30 June 2019 as disclosed under AASB 117 to the lease liabilities recognised on transition to AASB 16.

	\$'000
Operating lease commitments at 30 June 2019	67,346
Reasonably certain extension options	93,267
Non-lease component	(6,049)
Leases with a remaining lease term of less than 12 months	(107)
Prepayments	(3)
Impact of discounting using incremental borrowing rate at 1 July	(33,670)
Lease liabilities recognised at 1 July 2019	120,784

1 Summary of significant accounting policies (continued)

(a) *Basis of preparation (continued)*

Comparative information

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

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

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

Rounding

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

(b) *Taxes*

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

Income tax equivalents

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

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

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

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

Land tax and council rate equivalents

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

Goods and services tax

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

- 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.

1 Summary of significant accounting policies (continued)

(b) *Taxes (continued)*

Goods and services tax (continued)

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.

(c) *New accounting standards and interpretations not yet effective*

The Corporation did not voluntarily change any of its accounting policies during 2019/20.

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 2020.

AASB 1059 Service Concession Arrangements: Grantors is effective for the annual reporting period beginning 1 July 2020. This standard will be applicable to public-private partnerships (PPPs) which involve the private sector (the operator) providing public services related to a service concession arrangement on behalf of the public sector (the grantor) and the operator managing at least some of those services under its own discretion rather than at the direction of the grantor. It also requires that the government entity controls the asset used to deliver those services. A review has been completed of this standard and the result is that there will be no impact as all services are provided direct to the Corporation rather than directly to the public.

2 Financial risk management

(a) Market risk

(i) *Interest rate risk exposures - financial liabilities*

The Corporation's financial liabilities are exposed to interest rate risk. The Corporation constantly analyses its interest rate exposure and consideration is given to potential renewals of existing positions and the use of alternative risk mitigation strategies. To minimise interest rate volatility, the Corporation enters into forward starting loans (FSLs) with the South Australian Financing Authority (SAFA) where it agrees to borrow specified amounts in the future at a pre-determined interest rate. FSLs are non-derivative financial instruments which are outside the scope of AASB 9, and are disclosed as unrecognised fixed rate loan commitments. Refer note 2c.

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. As part of a Treasury Risk Management Policy review, the permissible duration range is 2.1 - 6.5 years.

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

At 30 June 2020 it has been assumed that a reasonable possible shift in interest rates over the next reporting period could be 1% upwards and -0.5% downwards.

	Carrying amount \$'000	Interest rate risk			
		-0.5%		+1.0%	
		Profit \$'000	Equity \$'000	Profit \$'000	Equity \$'000
30 June 2020					
Financial assets					
Cash and cash equivalents	4,844	(16)	(16)	34	34
Financial liabilities					
Short term borrowings	(29,974)	105	105	(210)	(210)
Total increase/(decrease)		89	89	(176)	(176)

	Carrying amount \$'000	Interest rate risk			
		-0.5%		+1.0%	
		Profit \$'000	Equity \$'000	Profit \$'000	Equity \$'000
30 June 2019					
Financial assets					
Cash and cash equivalents	2,772	(10)	(10)	19	19
Financial liabilities					
Short term borrowings	(27,174)	95	95	(190)	(190)
Total increase/(decrease)		85	85	(171)	(171)

2 Financial risk management (continued)

(a) *Market risk (continued)*

(ii) *Electricity price risk exposures*

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

The energy portfolio is managed to mitigate the associated financial risk through activities including demand management, electricity self-generation and financial market hedging.

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

Sensitivity analysis is based on electricity price risk exposures in existence at balance date assuming all other variables are held constant.

At 30 June 2019 and 30 June 2020 sensitivity analysis was not applicable as no electricity derivatives were held.

(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 there is 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.

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. The policy was reviewed in 2018 and approved by the Treasurer on 09 January 2019. SA Water is required to hold in cash or committed facilities appropriate capacity to meet immediate funding requirements and provide any unforeseen cash flow needs. Liquidity levels are reviewed on a daily basis.

Contractual maturities

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

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

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 2020					

Non-derivatives

Non-interest bearing liabilities*	89,722	-	-	-	89,722
Fixed rate borrowings	1,557,437	247,703	2,939,679	3,751,457	8,496,276
Floating rate borrowings	30,026	-	-	-	30,026
Lease liabilities	35,431	21,164	53,380	95,654	205,629
Total non-derivatives	1,712,616	268,867	2,993,059	3,847,111	8,821,653

	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 2019					

Non-derivatives

Non-interest bearing liabilities*	132,239	-	-	-	132,239
Fixed rate borrowings	2,428,681	799,897	1,344,495	3,560,378	8,133,451
Floating rate borrowings	27,195	-	-	-	27,195
Unrecognised fixed rate loan commitments**	18,924	33,237	478,334	499,485	1,029,980
Finance lease liabilities***	23,509	23,509	30,765	8,399	86,182
Total non-derivatives	2,630,548	856,643	1,853,594	4,068,262	9,409,047

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

** For 30 June 2019, 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 2-5 years category and over 5 years category in which the FSLs will mature.

***For 2018/19 the lease liabilities reflect only leases recognised in accordance with AASB 117.

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 the BOOT finance leases cannot be determined due to the unique nature of the leasing arrangements. Refer notes 18(b) and 21.

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

	2020		2019	
	Carrying amount \$'000	Fair value \$'000	Carrying amount \$'000	Fair value \$'000
Long term borrowings (note 22)	6,937,000	7,573,307	6,635,000	7,159,424

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

3 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:

- Contributed assets (refer note 4);
- Impact of COVID-19 (refer note 8);
- Renewable energy certificates (refer note 10);
- Asset valuation methodology and useful lives of assets (refer note 13);
- Impairment of assets (refer note 13);
- Provision for long service leave (refer note 24); and
- Provision for workers compensation (refer note 24).

4 Revenue from ordinary activities

	2020 \$'000	2019 \$'000
Revenue from contracts with customers		
Water and sewer rates and charges	1,245,913	1,246,762
Recoverable works	89,620	87,607
Fees and charges	46,648	45,953
Contributed assets	41,180	35,485
	1,423,361	1,415,807
Other revenue		
Community service obligations	169,391	140,267
Government grants	9,331	9,313
Rents	2,489	3,049
Miscellaneous	501	97
Interest	34	75
Interest - finance leases	98	-
	181,844	152,801
Total	1,605,205	1,568,608

Water and sewer rates and charges

SA Water sets its water and sewer prices in accordance with a pricing methodology that is guided by the principles outlined in the National Water Initiative and the South Australian Government's statewide pricing policy. Statewide pricing means that most customers pay the same price regardless of where they live or the actual cost of providing the service. Prices are set in line with the revenue caps set by the Essential Services Commission of South Australia (ESCOSA). The water demand and sewerage customer growth inputs are consistent with ESCOSA's regulatory determination.

The revenue for water and sewer charges is comprised of the following:

Water usage charge

This is a volumetric charge based on the number of kilolitres of water that are used by the customer. This is charged to customers for costs associated with pumping, treatment and the filtration of water. The supply of water to the customer is deemed to be a distinct performance obligation under the contract with the customer.

Revenue is recognised over time as water is received and consumed by the customer. The amount of revenue recognised is comprised of water usage billed for the period and an accrual for unbilled usage at 30 June.

The underlying revenue recognition principle is to recognise revenue in the period it is consumed. The period ended 30 June calculation is based on state-wide water supplied, customer billing information, and an assessment and adjustment for non-revenue water (includes water produced and then lost or unaccounted for, such as evaporation, fire fighting and leaks).

4 Revenue from ordinary activities (continued)

Water and sewer rates and charges (continued)

Water access charge

This is a fixed charge that is billed to customers whose properties have been provided with access to the water supply network (connected or unconnected). This is charged to customers for costs associated with building, maintaining and replacing water mains, pipes, reservoirs and other water infrastructure. Commercial customers are charged based on the capital value of their property subject to a minimum charge. Most other customers receive a fixed charge equivalent to the minimum charge. Commercial water charges are updated every year on the basis of the latest Valuer General property values.

Sewerage access charge

A performance obligation exists to enable customers to have access to SA Water's sewerage infrastructure. Revenue is recognised over time as customers require access to the sewerage services. All customers are billed quarterly with the last bill of the year being for the period ended 30 June. Revenue is recognised as the performance obligation is satisfied. It is at this point that customer bills are raised.

Properties that have been provided with access to the sewerage network (connected or unconnected) pay this charge. This is a charge that is billed to the customer quarterly for the removal and treatment of sewage. Charges are associated with building, maintaining and replacing sewer pipes, sewerage pump stations, sewerage treatment plants and other sewerage infrastructure.

A performance obligation exists to enable customers to have access to SA Water sewerage infrastructure. Revenue is recognised over time as customers require access to sewerage services. All customers are billed quarterly with the last bill of the year being for the period ended 30 June. Revenue is recognised as the performance obligation is satisfied. It is at this point that customer bills are raised.

Sewerage charges are updated every year on the basis of the latest Valuer General property values.

Community service obligations (CSOs)

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

During the 2019/20 financial year an agreement between the Commonwealth Government and the State of South Australia was formalised whereby SA Water would produce water from the Adelaide Desalination Plant. The equivalent unused River Murray water allocations would then be transferred from entitlements held by the State in the Murray - Darling Basin to irrigators in the Southern Murray Darling Basin under the Water for Fodder program. The Commonwealth Government will fund the State to produce up to 100GL of water at the actual marginal cost of production from the Adelaide Desalination Plant. The project spans from the 2019/20 financial year when an initial 40GL of water was transferred, to 2020/21 if required when up to a further 60GL could be transferred.

The CSO revenue is recognised as the services are provided.

Contributed assets

Contributed assets principally arise from:

(i) Mains extensions contributions

Customers or Developers who make a contribution where a service or connection has been requested that will require construction of a new main.

4 Revenue from ordinary activities (continued)

Contributed assets (continued)

A performance obligation exists to construct infrastructure for customers based on the cash contributions that are received by SA Water. This performance obligation is satisfied over time and revenue recognised when the constructed assets are practically completed. When the customer initially makes the payment the amount received is recognised as a contract liability.

(ii) Gifted assets:

Developers who make contributions where water and sewer infrastructures are constructed by developers and transferred to SA Water. The contribution recognised is equivalent to the fair value of these assets that is estimated using the depreciated modern equivalent replacement cost.

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

(iii) Miscellaneous capital contributions

The Corporation constructs the infrastructure at the developer's request.

The performance obligation is satisfied over time and revenue recognised at key milestones during the construction of the asset, and when the asset is practically complete.

(iv) Augmentation cash contributions

When an individual development forms part of a larger area where further development will occur, rather than only consider what upgrade work is required for the individual development, an augmentation charge can be established to fund the infrastructure required to serve the total area to be developed.

An augmentation charge may also be applied where there are a number of existing properties not currently connected to a service offered by SA Water.

The performance obligation is satisfied at a point in time when the customer has access to water and sewerage services.

The administration fees associated with the processing of an application are treated as a separate distinct performance obligation. Revenue is recognised at a point in time when payment is received from the customer.

Recoverable works

SA Water is requested by local councils and other government departments to undertake capital works and make alterations to the water and sewerage network in accordance with contract specifications. The performance obligation for these contracts is satisfied over time as the work is undertaken.

Revenue is recognised when the works are practically completed, and the customer is billed for costs incurred on the project.

SA Water provides a comprehensive range of water and sewerage services including sampling, analysis, advice and research. The performance obligation for these contracts is satisfied at a point in time. Revenue is recognised as customers are billed, which is after testing has been undertaken and the results have been reported to the customer.

4 Revenue from ordinary activities (continued)

Fees and charges

This includes ancillary services that are associated with the provision of water and sewer services. These services include the connection of the customer to the water and sewerage network. A performance obligation exists for SA Water to connect customers to the water and sewerage network. As the service provided requires the construction of an asset, revenue is recognised over time as the constructed assets are practically completed. In accordance with the contract with the customer, payment must be received before works can be undertaken. When the customer initially makes the payment, the amount received is recognised as a contract liability. For other fees and charges the performance obligation is satisfied and revenue recognised at a point in time once the service has been provided by SA Water.

A performance obligation also exists to provide customers access to dispose of hazardous waste through SA Water infrastructure. The amount charged is based on volume of waste that is disposed. Revenue recognition occurs as services are provided.

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.

Disaggregation of revenue from contracts with customers

In accordance with AASB 15, revenue has been disaggregated based on the provision of water and wastewater services to customers.

30 June 2020	Water \$'000	Wastewater \$'000	Total \$'000
Revenue from contracts with customers			
Water and sewer rates and charges	885,144	360,769	1,245,913
Recoverable works	87,520	2,101	89,621
Fees and charges	24,122	22,525	46,647
Contributed assets	15,806	25,374	41,180
Total revenue from contracts with customers	1,012,592	410,769	1,423,361
 30 June 2019	 Water \$'000	 Wastewater \$'000	 Total \$'000
Revenue from contracts with customers			
Water and sewer rates and charges	893,176	353,586	1,246,762
Recoverable works	86,320	1,287	87,607
Fees and charges	23,984	21,969	45,953
Contributed assets	19,513	15,972	35,485
Total revenue from contracts with customers	1,022,993	392,814	1,415,807

5 Other income

	2020 \$'000	2019 \$'000
Net gain on disposal of infrastructure, plant and equipment	166	190
Net gain on disposal of water allocations	491	13,109
Reversal of prior year infrastructure, plant and equipment revaluation decrement	79	553
Net gain from electricity derivatives at fair value through profit and loss	-	9
	736	13,861

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.

6 Expenses

	Notes	2020 \$'000	2019 \$'000
<u>Depreciation and amortisation</u>			
Infrastructure, plant and equipment	13	326,062	338,712
Intangible assets	12	19,940	21,882
Right-of-use assets	15	16,045	-
Total depreciation and amortisation		362,047	360,594
<u>Services & supplies</u>			
Consultancy costs		769	506
Net bad and doubtful debts		88	86
Net loss on disposal of renewable energy certificates		226	5,228
Write-off in value of infrastructure, plant, equipment and capital WIP		8,260	4,025
Operating minimum lease payments		-	16,383
Cost of goods sold		30,922	29,967
External fees and charges		41,322	39,232
Licences		19,439	17,672
Finance lease contingent rentals		-	5,531
Materials and chemicals		16,784	18,178
Other services and supplies		38,070	44,957
Short-term leases		308	-
Infrastructure, plant and equipment revaluation decrement		1,062	-
Total services & supplies		157,250	181,765
<u>Borrowing costs</u>			
Interest paid/payable on short term and long term borrowings		307,341	323,327
Interest expense on lease liabilities		10,282	6,439
Total borrowing costs		317,623	329,766
<u>Employee benefits</u>			
Salaries and wages		103,267	101,556
Long service leave		5,732	4,227
Annual leave		12,007	11,969
Workers compensation		634	735
Superannuation contribution		18,608	18,021
Total employee benefits		140,248	136,508
<u>Consultancy costs</u>			
Less than \$10,000 (Number 2020: 1 ; 2019: 5)		7	14
Between \$10,000 and \$50,000 (Number 2020: 2 ; 2019: 10)		48	318
Greater than \$50,000 (Number 2020: 6 ; 2019: 2)		714	174
		769	506

6 Expenses (continued)

Superannuation

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

Depreciation

Leased infrastructure, plant and equipment are depreciated over the term of the lease. For BOOT arrangements, as ownership of the underlying asset is transferred to the Corporation at the end of the lease term, depreciation is calculated over the useful life of the underlying asset. Owned infrastructure, 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
- Right-of-use infrastructure assets *	20 - 50 years
- Buildings	50 years
- Other	2 - 50 years
- Plant and equipment	3 - 15 years

*Previously denoted as water and sewer leased assets

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

Borrowing costs

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

In accordance with the *Treasurer's Instructions (Accounting Policy Statements)* 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.

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 (e.g. electricity) risk. Within the parameters of these 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).

6 Expenses (continued)

Short term and low-value leases

In accordance with AASB 16 *Leases* and *Treasurer's Instructions (Accounting Policy Statements)* the Corporation must apply the recognition exemption for short-term leases and leases for which the underlying asset is of low value. The recognition exemption for short-term leases is applied by class of underlying asset to which the right-of-use relates. In accordance with AASB 16 a short-term lease is a lease that, at the commencement date, has a lease term of 12 months or less. The recognition exemption for leases for which the underlying asset is of low value can be made on a lease-by-lease basis. In accordance with AASB 16 the lease payments associated with these types of leases are recognised as an expense over the term of the lease.

Operating leases recognised under AASB 117

In accordance with AASB 117 *Leases* minimum lease payments of operating leases, where the lessor effectively retains substantially all of the risks and benefits of ownership of the leased items, are recognised as an expense in the statement of comprehensive income. Equal payments are made over the accounting periods covered by the lease term, except where an alternative basis is more representative of the pattern of benefits to be derived from the leased property.

Finance leases previously recognised under AASB 117

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

The Corporation has previously entered into 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.

Leases recognised under AASB 16

For any new contracts entered into on or after 1 July 2019, the Corporation considers whether a contract is, or contains a lease in accordance with AASB 16 *Leases*. A lease is defined as 'a contract, or part of a contract, that conveys the right to use an asset (the underlying asset) for a period of time in exchange for consideration'. To apply this definition the Corporation assesses whether the contract meets three key requirements which are whether:

- The contract contains an identified asset, which is either explicitly identified in the contract or implicitly specified by being identified at the time the asset is made available to the Corporation.
- The Corporation has the right to obtain substantially all of the economic benefits from use of the identified asset throughout the period of use, considering its rights within the defined scope of the contract.
- The Corporation has the right to direct the use of the identified asset throughout the period of use. This will arise where the Corporation has the right to direct 'how and for what purpose' the asset is used.

6 Expenses (continued)

Leases recognised under AASB 16 (continued)

At lease commencement date, the Corporation recognises a right-of-use asset and a lease liability on the statement of financial position. The right-of-use asset is measured at cost, which is made up of the initial measurement of the lease liability and any initial direct costs incurred by the Corporation. When the Corporation incurs an obligation for costs to dismantle and remove a leased asset, restore the site on which it is located or restore the underlying asset to the condition required by the terms and conditions of the lease, a provision is recognised and measured under *AASB 137 Provisions, Contingent Liabilities and Contingent Assets*. The costs are included in the related right-of-use asset.

The lease liability is measured at the present value of the lease payments unpaid at that date, discounted using the interest rate implicit in the lease if that rate is readily available or the incremental borrowing rate. The lease payment is allocated between interest expense and a reduction in the lease liability, with the interest expense calculated using the incremental borrowing rate published by the Department of Treasury and Finance.

The right-of-use asset is adjusted for remeasurement of lease liabilities and derecognition associated with the recognition of a finance lease for subleases. The right-of-use asset is also assessed for impairment when such indicators exist.

7 Income tax expense

(a) *Income tax expense*

	2020 \$'000	2019 \$'000
Current tax	106,294	97,042
Deferred tax	(13,708)	(17,406)
Amounts under provided in prior years	1	1
	92,587	79,637

Deferred income tax included in income tax expense comprises:

(Increase)/decrease in deferred tax assets (note 11)	1,286	(620)
(Decrease) in deferred tax liabilities (note 23)	(14,994)	(16,786)
	(13,708)	(17,406)

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

	2020 \$'000	2019 \$'000
Profit from continuing operations before income tax expense	315,673	272,480
Tax at the Australian tax rate of 30.0% (2019: 30.0%)	94,702	81,744
Tax effect of amounts which are not deductible (taxable) in calculating taxable income:		
ADP intangible asset amortisation	510	510
Government grants	(2,626)	(2,618)
	92,586	79,636
Amounts under provided in prior years	1	1
Income tax expense	92,587	79,637

(c) *Income tax relating to items of other comprehensive income*

	2020 \$'000	2019 \$'000
(Loss)/gain on revaluation of infrastructure, plant and equipment	(352,985)	32,156
Adjustment on initial adoption of AASB 16	(7,871)	-
Leased infrastructure assets	5,359	-
Adjustment on initial adoption of AASB 9 (note 29(a) & 29(b))	-	(39)
	(355,497)	32,117

8 Current assets - Receivables

	2020 \$'000	2019 \$'000
Receivables		
Rates receivable (water and sewer)	165,780	171,414
Sundry debtors*	31,725	42,968
Allowance for doubtful debts	(193)	(142)
	197,312	214,240
Other receivables		
Finance lease receivable	914	-
Community service obligations	25,047	19,646
	223,273	233,886

*Sundry debtors includes trade waste revenue, Australian Water Quality Centre revenue & other miscellaneous fees and charges.

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.

(a) *Impaired trade receivables*

The Corporation recognises an allowance for doubtful debts from the initial recognition of trade receivables using the simplified approach permitted by AASB 9. Under the simplified approach lifetime expected credit losses have been recognised using historical write-off experience.

The impact of COVID-19 has been considered to determine if this approach remains reflective. There is insufficient evidence to support an increase to the allowance for doubtful debts solely related to COVID-19 and the simplified approach using historical write-off experience has been maintained.

An allowance for doubtful debts has also been recognised based on an assessment of expected credit losses where a debtor has experienced a known credit event.

Receivables are written off when there is no reasonable expectation of recovery. Indicators that there is no reasonable expectation of recovery include the failure of a debtor to enter into a payment plan with the Corporation, the Company has gone into liquidation, unable to recover the water and sewer charges from the sale of the customers property in accordance with the South Australian Water Corporation Act 1994.

8 Current assets - Receivables (continued)

(a) *Impaired trade receivables (continued)*

Movements in the allowance for doubtful debts are as follows:

	2020 \$'000	2019 \$'000
Opening balance at 1 July	142	163
Increase in the allowance	72	3
Amounts written off	(36)	(107)
Amounts reversed	15	83
Closing balance at 30 June	193	142

SA Water has elected not to adopt a provision matrix methodology for measuring expected credit losses under AASB 9 due to the immateriality of exposure to credit risk. The information relating to the ageing analysis for rates and sundry receivables is shown below:

8 Current assets - Receivables (continued)

(a) *Impaired trade receivables (continued)*

	2020 \$'000	2019 \$'000
At 30 June the ageing of rates receivable is as follows:		
Not past due	118,270	126,677
Past due 22 - 60 days	18,539	19,736
Past due 61 - 90 days	5,619	6,212
Past due 91 - 120 days	4,046	877
Past due > 120 days	19,306	17,912
	165,780	171,414

	2020 \$'000	2019 \$'000
At 30 June the ageing of sundry debtors is as follows:		
Not past due	28,558	31,932
Past due 31 - 60 days	1,922	2,346
Past due 61 - 90 days	428	955
Past due 91 - 120 days	38	28
Past due > 120 days	779	7,707
	31,725	42,968

Balances for other receivables relates 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.

8 Current assets - Receivables (continued)

(b) *Finance lease receivable*

The following is a maturity analysis of the current and non-current finance lease receivable which is required under AASB 16 Leases:

	2020 \$'000
Undiscounted finance lease payments receivable	
Less than 1 year	991
Between 1 and 2 years	1,020
Between 2 and 5 years	1,772
Total undiscounted finance payments receivable	3,783
Less unearned finance income	164
Total finance lease receivables	3,619

The Corporation subleases one floor of its office building located in Adelaide CBD to the South Australian Tourism Commission. There are 4 years remaining on the term of the sublease, which aligns to the head lease. Consequently, the sublease is classified as a finance lease. The payment received for the sublease is allocated between a reduction in the lease receivable and interest received.

None of the finance lease receivable at the end of the reporting period is past due and taking into consideration the historical default experience and current economic conditions it is considered not to be impaired.

Operating leases

The following table is a maturity analysis of lease payments, showing the undiscounted operating lease payments to be received after the reporting date.

	2020 \$'000	2019 \$'000
Undiscounted operating lease payments		
Less than 1 year	385	-
Between 1 and 2 years	40	-
Total	425	-

(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.

9 Current assets - Inventories

	2020 \$'000	2019 \$'000
Raw materials and stores	8,422	7,357
Allowance for obsolete stock	(254)	(186)
Work in progress	760	1,327
	8,928	8,498

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.

10 Current assets - Other current assets

	2020 \$'000	2019 \$'000
Interest receivable	6	5
Prepayments	9,707	10,400
Renewable Energy Certificates*	1,454	1,501
Lease incentive asset	-	60
Australian carbon credits	289	795
	11,456	12,761

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

11 Non-current assets - Deferred tax assets

	Notes	2020 \$'000	2019 \$'000
The balance comprises temporary differences attributable to:			
Doubtful debts		19	3
Obsolete stock		76	56
Infrastructure, plant and equipment		11,650	11,851
Pooled assets		47	58
Payables		1,547	1,439
Audit fee payable		153	136
Government grants		10,924	11,087
Employee benefits		14,270	13,634
Deferred lease incentives		173	173
Lease liability - right-of-use asset		(2,917)	-
Unearned customer contributions		(1,202)	(1,000)
Unearned income		709	89
Provision for asset disposal		972	455
Provision for workers compensation		467	193
		36,888	38,174
<i>Amounts recognised directly in equity</i>			
Unearned customer contributions		2,335	2,335
Revaluation of Infrastructure, plant and equipment	29	(405)	(417)
Lease liability - Initial adoption of AASB 16		36,236	-
Leased infrastructure assets		(1,061)	-
Lease make good provision		494	-
Deferred lease incentives		(173)	-
Doubtful debts - Initial adoption of AASB 9		39	39
		74,353	40,131
<i>Recognition of leases - AASB 16</i>			
Recognition of new leases		1,015	-
		1,015	-
Total deferred tax assets		75,368	40,131
Movements:			
Opening balance at 1 July		40,131	40,169
Charged to the statement of comprehensive income		(1,286)	620
Charged to equity (note 29(a) & 29(b))		35,508	(658)
Recognition of new leases - AASB 16		1,015	-
Closing balance at 30 June		75,368	40,131
Deferred tax assets expected to be recovered within 12 months		11,500	7,360
Deferred tax assets expected to be recovered after more than 12 months		63,868	32,771
		75,368	40,131

South Australian Water Corporation
Notes to the financial statements
30 June 2020
(continued)

12 Intangible assets

Year ended 30 June 2020

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	Total \$'000
6,213	4,500	45,857	57,874	41,159	155,603
-	-	39,900	-	-	39,900
-	-	(18,240)	(1,700)	-	(19,940)
6,213	4,500	67,517	56,174	41,159	175,563

At 30 June 2020

Cost
Accumulated amortisation
Net book amount

6,213	4,500	264,883	70,982	41,159	387,737
-	-	(197,366)	(14,808)	-	(212,174)
6,213	4,500	67,517	56,174	41,159	175,563

Year ended 30 June 2019

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	Total \$'000
6,213	4,500	39,826	59,574	40,981	151,094
-	-	26,213	-	178	26,391
-	-	(20,182)	(1,700)	-	(21,882)
6,213	4,500	45,857	57,874	41,159	155,603

At 30 June 2019

South Australian Water Corporation
Notes to the financial statements
30 June 2020
(continued)

12 Intangible assets (continued)

Cost
Accumulated amortisation
Net book amount

Easements \$'000	Prescription rights \$'000	Computer software \$'000	ADP intangible \$'000	Purchased water rights \$'000	Total \$'000
6,213	4,500	224,983	70,982	41,159	347,837
-	-	(179,126)	(13,108)	-	(192,234)
6,213	4,500	45,857	57,874	41,159	155,603

12 Intangible assets (continued)

Issued water licences

The South Australian Government has issued water licences to the Corporation under the relevant Water Allocation Plan for the water resource given effect by the *Natural Resources Management (NRM) Act 2004 (SA)*. Some of these licences have conditions attached which restrict the use of the allocations endorsed thereon. All licences are held to underpin the water security of SA Water customers. These licences are held by the Corporation in accordance with Department of Treasury & Finance (DTF) Accounting Policy Statement reference 138.

The Corporation holds a River Murray licence to underpin the metropolitan Adelaide and associated country Areas, and a licence that supports our River Murray Country towns customers

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.

Purchased water rights

The Corporation owns a series of tradable water rights that it has purchased from the Southern Murray Darling Basin water trading markets. 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)). The allocations made to these water rights are held in South Australia or are able to be transferred into South Australia from within the Southern Murray Darling Basin, subject to statutory trading rules.

In accordance with the requirements of *Treasurer's Instructions (Accounting Policy Statements)* 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.

Easements

In accordance with the *Treasurer's Instructions (Accounting Policy Statements)* and *AASB 138 Intangible Assets*, easements have been 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. The useful life is reviewed annually and has been assessed at 5 years. The software is amortised using the straight-line method.

12 Intangible assets (continued)

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, 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. 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 financial statements
30 June 2020
(continued)

13 Non-current assets - Infrastructure, plant and equipment

	Work in progress \$'000	Land infrastructure \$'000	Leased sewer infrastructure \$'000	Plant and infrastructure equipment \$'000	System assets* \$'000	Leased water infrastructure \$'000	Other property, plant and equipment \$'000	Total \$'000
Year ended 30 June 2020								
Opening net book amount	653,741	385,806	16,633	20,647	12,962,138	73,608	99,596	14,212,169
Impact of adoption of AASB 16**	-	-	(16,633)	-	-	(73,608)	-	(90,241)
Revaluation increment/(decrement)	-	14,569	-	-	(1,178,397)	-	-	(1,163,828)
Additions***	564,887	-	-	6,491	567,593	-	19,386	1,158,357
Transfers	(608,267)	-	-	-	-	-	-	(608,267)
Depreciation charge	-	-	-	(2,859)	(302,706)	-	(20,497)	(326,062)
Asset write-down	(4,040)	-	-	-	(4,220)	-	-	(8,260)
Disposals	-	-	-	(418)	-	-	-	(418)
Closing net book amount	606,321	400,375	-	23,861	12,044,408	-	98,485	13,173,450
At 30 June 2020								
Cost or fair value	606,321	400,375	-	57,597	20,943,706	-	358,966	22,366,965
Accumulated depreciation	-	-	-	(33,736)	(8,899,298)	-	(260,481)	(9,193,515)
Net book amount	606,321	400,375	-	23,861	12,044,408	-	98,485	13,173,450

*Water and sewer infrastructure assets and buildings previously split out are referred to as system infrastructure assets.

**Leased water and sewer infrastructure assets were previously recognised in accordance with AASB 117. Management have now adopted AASB 16 in line with the transitional requirements of the standard. On initial adoption of AASB 16 these leases were reclassified from infrastructure, plant and equipment to right-of-use assets. Refer to note 15.

***Additions include transfers to work in progress.

South Australian Water Corporation
Notes to the financial statements
30 June 2020
(continued)

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

	Work in progress \$'000	Land infrastructure \$'000	Leased sewer infrastructure \$'000	Plant and infrastructure equipment \$'000	*System assets \$'000	Leased water infrastructure \$'000	Other property, plant and equipment \$'000	Total \$'000
Year ended 30 June 2019								
Opening net book amount	399,748	375,508	22,699	20,537	12,888,711	74,892	106,614	13,888,709
Revaluation increment/(decrement)	-	10,298	(4,693)	-	105,935	2,303	3,547	117,390
Additions**	551,180	-	-	2,878	278,161	811	10,248	843,278
Depreciation charge	-	-	(1,373)	(2,609)	(309,519)	(4,398)	(20,813)	(338,712)
Asset write-down	(2,875)	-	-	-	(1,150)	-	-	(4,025)
Disposals	-	-	-	(159)	-	-	-	(159)
Transfers	(294,312)	-	-	-	-	-	-	(294,312)
Closing net book amount	653,741	385,806	16,633	20,647	12,962,138	73,608	99,596	14,212,169
At 30 June 2019								
Cost	653,741	-	-	-	-	-	-	653,741
Valuation	-	385,806	35,853	53,355	22,483,449	209,431	339,580	23,507,474
Accumulated depreciation	-	-	(19,220)	(32,708)	(9,521,311)	(135,823)	(239,984)	(9,949,046)
Net book amount	653,741	385,806	16,633	20,647	12,962,138	73,608	99,596	14,212,169

* Water and sewer infrastructure assets and buildings previously split out are referred to as system infrastructure assets.

** Additions include transfers to work in progress.

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

Infrastructure, plant and equipment

(a) Carrying amounts that would have been recognised

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

	Land \$'000	*System infrastructure assets \$'000	**Leased sewer and water \$'000	Other plant and equipment \$'000	Total \$'000
Revalued assets based on cost model					
Cost	52,816	8,142,249	-	283,644	8,478,709
Accumulated depreciation	-	(2,623,153)	-	(196,484)	(2,819,637)
At 30 June 2020 net carrying amount	52,816	5,519,096	-	87,160	5,659,072
Revalued assets based on cost model					
Cost	52,816	7,615,411	142,975	264,257	8,075,459
Accumulated depreciation	-	(2,472,628)	(85,202)	(178,765)	(2,736,595)
At 30 June 2019 net carrying amount	52,816	5,142,783	57,773	85,492	5,338,864

* Water and sewer infrastructure assets and buildings previously split out are referred to as system infrastructure assets.

**Leased water and sewer infrastructure assets were previously recognised in accordance with AASB 117. Management have now adopted AASB 16 in line with the transitional requirements of the standard. On initial adoption of AASB 16 these leases were reclassified from infrastructure, plant and equipment to right-of-use assets. Refer to note 15.

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 above in expenses (note 6). Assets acquired under BOOT agreements are brought to account when commissioned as right-of-use assets, ownership is transferred to SA Water once the lease expires.

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

Valuations

The Corporation has adopted the revaluation method for measuring and reporting infrastructure assets in the statement of financial position in accordance with *AASB 13 Fair Value Measurement* and *AASB 116 Property, Plant and Equipment*. Refer note 14 for disclosures regarding fair value level hierarchy.

In prior years, the Corporation used both independent valuation and Director's valuation methods to measure fair value dependent upon asset class utilising the depreciable replacement cost method. Depending upon the asset class, the Director's valuation was performed using the Producer Price Index (PPI) or current contract rates. The system infrastructure assets were re-valued on a cyclical basis at least every 5 years, and in the intervening periods they were indexed annually at 1 July using the appropriate PPI.

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

Infrastructure, plant and equipment (continued)

Valuations (continued)

For 2019/20, SA Water has adopted the use of the income approach in accordance with Australian Accounting Standard AASB 13 Fair Value Measurement for valuation of the Corporation's system infrastructure assets. These were previously denoted as infrastructure assets (such as pipes, treatment plants, pumping stations and buildings). The independent valuation will no longer be required in future years as a result of the change to the income approach.

The application of the income approach means the assets are valued using a discounted cash flow methodology at 30 June 2020, based on the discounted value of the future cash flows expected to be generated from the use of SA Water's assets under the environment in which the Corporation operates as a for profit entity. Future cashflows generated from the use of these assets are considered the primary factor that a market participant would consider when pricing these assets.

With SA Water about to enter its third regulatory determination period beginning on 1st July 2020, the regulatory environment is now considered to be mature and stable. Therefore, SA Water considered it the appropriate time to adopt the income approach valuation methodology. Adopting the income approach also aligns SA Water with standard industry practice amongst comparable for-profit peers.

Revaluations undertaken during each reporting period are effective from 30 June. Depreciation for the year is based on the carrying value of assets prior to revaluation.

System infrastructure assets

Includes all the Corporations network assets, its treatment plants for both water and sewerage, storage related assets and buildings and depots. These assets deliver water, sewerage and recycled water to and from the customer through its integrated network of assets.

The income approach has been adopted by SA Water to determine fair value of its system infrastructure assets, as there is generally no active market for assets of such a specialised nature. As a for-profit entity, any expected transaction for the Corporation's assets would be based on the income that the assets derive.

The income approach calculates the future net cashflows from the whole of the integrated network of system infrastructure assets held by the Corporation, which are discounted to their present value. The network of system assets are assessed as an integrated network because of the interdependent nature of their operations.

The Corporation aligns its approach to determining the future cash flows with the methodology applied by the Essential Services Commission of South Australia (ESCOSA). In addition to the cash flows for regulated assets under this approach, the Corporation's fair value calculations also include estimated cash flows from non-regulated assets, which are not included in ESCOSA's methodology.

The fair value of system infrastructure assets is determined by calculating the total value of all SA Water assets that contribute to the generation of future cashflows and then deducting asset classes that have been valued using the market or cost approach.

Land

Land is independently valued using the market approach by the State Valuer General. 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.

Land is valued separately from any structures or improvements residing on it. It is acquired and held principally for continued use. Land has an unlimited useful life and is not a depreciable asset.

Plant and equipment

Includes operating plant and machinery, vehicles and office equipment. Valued at cost which is deemed to be its fair value.

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

Infrastructure, plant and equipment (continued)

Plant and equipment (continued)

Costs associated with this class include construction cost or purchase price, installation costs and attributable labour.

Other property, plant and equipment

Includes computing equipment, leasehold improvements and assets that do not fall into the above categories.

On initial recognition costs associated with this asset class include construction cost or purchase price, installation costs and attributable labour. These assets are subsequently revalued. Our methodology for measuring fair value is the cost approach within AASB 13 using the directors valuation to measure fair value. The Corporation assess whether the carrying value is materially consistent with fair value on an annual basis and appropriately update using indexation where required.

Work in progress

Includes all the Corporation's capital projects that are currently under construction. Carried at cost which is deemed to be its fair value.

Recognised at fair value based on the cost approach at 30 June 2020.

Costs associated with this class include construction cost or purchase price, installation costs and attributable labour.

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

Infrastructure, plant and equipment (continued)

Fair value model

A discounted cash flow model is used to determine fair value for all assets classes valued under the income approach. Determining fair value under this approach is highly dependent on the assumptions and inputs used to estimate the future cashflows.

The significant judgement and estimate of assumptions and inputs used in the Corporation's fair value model (primarily level 3 inputs) are below:

Input	Impact on fair value measurement	For 30 June 2020
Discount rate	Asset value would increase as the discount rate decreases.	Nominal post-tax Weighted Average Cost of Capital (WACC) of 4.45%.
Perpetual growth rate	Asset value would increase as the perpetual growth rate increases.	2.50%
CPI rate	Asset value would increase as CPI increases.	2020/21 is based on annual CPI ending March 2020, reflecting the actual revenue increase. 2021/22 onwards utilises a glide path to a long term rate of 2.50%
Period of discounting	Asset value would increase as period of discounting increases.	5 years (with an estimate of terminal value).
<i>Cash inflows:</i>		
Service and usage revenue	Asset value would increase if future revenue increases.	Estimates of future revenues were based the SA Water Regulatory Determination 2020 and expected revenue over succeeding regulatory periods.
Other non-regulated revenue	Asset value would increase if non-regulated revenue increases.	Non-regulated revenue is based on forward estimates. Investment and interest income is excluded.
<i>Cash outflows:</i>		
Operating expenditure	Asset value would increase as operating expenditure decreases	Operating expenditure is based on the SA Water Regulatory Determination 2020 and estimates of non-regulated expenditure.
Capital expenditure	Asset value would increase as capital expenditure decreases.	Capital expenditure based on the SA Water Regulatory Determination 2020 and estimates of non-regulated Capital expenditure.

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

Infrastructure, plant and equipment (continued)

Fair value model (continued)

Sensitivity analysis

(i) Discount rate	Rate applied %	If higher +0.1%	If lower -0.1%
Nominal post-tax rate	4.45%	4.55%	4.35%
Calculated fair value of infrastructure, plant and equipment ('\$000)	\$13,173,450	\$12,486,450	\$13,967,450
Resulting change ('\$000)		(\$687,000)	\$794,000

(ii) Perpetual nominal growth rate	Rate applied %	If higher +0.1%	If lower -0.1%
Nominal Post tax rate	2.50%	2.60%	2.40%
Calculated fair value of infrastructure, plant and equipment ('\$000)	\$13,173,450	\$13,895,450	\$12,521,450
Resulting change ('\$000)		\$722,000	(\$652,000)

(iii) Sustainable Capital Expenditure	Value applied \$	If higher \$10.0m	If lower \$10.0m
Nominal post-tax value	\$384.4m	\$394.4m	\$374.4m
Calculated fair value of infrastructure, plant and equipment ('\$000)	\$13,173,450	\$12,535,450	\$13,811,450
Resulting change ('\$000)		(\$638,000)	\$638,000

The sensitivity analysis is being carried out on those variables which have the greatest influence over the discounted cashflow.

Impairment of assets

AASB 136 *Impairment of Assets* requires for-profit entities, at each reporting date, to undertake an assessment for impairment indicators for its non-current assets including infrastructure, plant and equipment. Where there is an indication of impairment, an impairment test is undertaken for a cash-generating unit and the recoverable amount is estimated. SA Water has a single cash-generating unit at a whole of entity level. Recoverable amount is determined as the higher of fair value less cost of disposal and value-in-use.

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.

SA Water, in accordance with AASB 136, has sound impairment monitoring processes where management assess whether there are any "impairment indicators" being present from external and internal sources prior to each reporting date. External and internal sources include but are not limited to market conditions, technology changes or asset obsolescence.

In June 2020, the outcome of the South Australian Inquiry into water prices and the SA Water Regulatory Determination 2020 were released. The impacts resulting from the pricing inquiry outcome and regulatory determination are incorporated within the fair value measurement as at 30 June 2020, with the carrying value based on fair value adjusted accordingly. As these factors were taken into consideration at 30 June 2020 as part of the asset revaluation no further impact of these outcomes are required to be accounted for under AASB 136.

14 Fair value measurements

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

- Land (note 13);
- Leased water and sewer infrastructure (note 13);
- System infrastructure assets (note 13);
- Plant and equipment (note 13);
- Other property, plant and equipment (note 13).

(a) *Fair value measurements*

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

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

The following table presents the Corporation's non-financial assets measured and recognised at fair value at 30 June 2020.

(i) *Recognised fair value measurements*

30 June 2020	Notes	2020 \$'000	Level 1 \$'000	Level 2 \$'000	Level 3 \$'000
<i>Recurring fair value measurements</i>					
Non- Financial Assets	13				
Land		400,375	-	400,375	-
System infrastructure assets		12,044,408	-	-	12,044,408
Plant and equipment and other		122,343	-	-	122,343
Total non-financial assets		12,567,126	-	400,375	12,166,751
Total recurring financial and non-financial assets		12,567,126	-	400,375	12,166,751

14 Fair value measurements (continued)

(a) *Fair value measurements (continued)*

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

30 June 2019	Notes	2019 \$'000	Level 1 \$'000	Level 2 \$'000	Level 3 \$'000
<i>Recurring fair value measurement</i>					
Non-financial assets	13				
Land		385,806	-	385,806	-
System infrastructure assets		13,052,379	-	-	13,052,379
Plant and equipment and other		120,244	-	-	120,244
Total non-financial assets		13,558,429	-	385,806	13,172,623
Total recurring financial and non-financial assets		13,558,429	-	385,806	13,172,623

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 2(d)(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 13.

There has been a change in the valuation technique in this reporting period from depreciable replacement cost to the income approach. Unobservable inputs have been utilised for both methods in determining the fair value and are subjective. Accordingly, disclosures in note 13 between reporting periods also reflect the differences in these two approaches.

The amounts shown as comparatives for fair value in note 14 are disclosed according to the fair value definitions that apply or applied in each relevant reporting period. When categories of assets are revalued based on the income approach, any existing accumulated depreciation or amortisation is eliminated against the gross carrying amount of the asset and the net amount is restated to the revalued amount of the asset.

14 Fair value measurements (continued)

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

(ii) *Non-recurring fair value measurements*

SA Water has no non-recurring fair value measurements.

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

Refer to note 13 for information relating to unobservable inputs and valuation processes.

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

The recurring fair value measurements for those asset classes using significant unobservable inputs (level 3) is disclosed under note 13.

Water and sewer infrastructure and buildings have been separately disclosed in previous financial years, however have now been amalgamated into system infrastructure assets.

15 Non-current assets - Right-of-use asset

	Land \$'000	Buildings \$'000	Plant and equipment \$'000	Infrastructure assets \$'000	Total \$'000
Opening balance at 1 July 2019	587	84,854	6,056	90,241	181,738
Additions	-	-	3,383	-	3,383
Lease liability remeasurement	-	-	-	17,863	17,863
Depreciation	(20)	(6,710)	(3,478)	(5,837)	(16,045)
Disposals	-	-	(73)	-	(73)
Closing net book amount at 30 June 2020	567	78,144	5,888	102,267	186,866

The Corporation has entered into a number of leases:

A Memorandum of Lease has been entered into with Adelaide Airport Limited for the use of land for the purpose of storm water capture, management and treatment. The term of the lease is 29 years with monthly rental payments which are increased annually by the higher of 4% and CPI.

A Memorandum of Administrative Arrangement has been entered into with the Department of Planning Transport and Infrastructure for the lease of its office accommodation in Adelaide CBD and at Berri. The initial recognition of the right-of-use asset has been calculated in accordance with the transitional requirements of AASB 16. The carrying amount of the right-of-use asset for the office in the CBD has been calculated at the commencement date of the lease, but discounted using the incremental borrowing rate at 1 July 2019. While the right-of-use asset for the office accommodation at Berri has been calculated as the amount equal to the remaining lease liability at 1 July 2019. The lease is paid monthly and increased annually by a fixed amount of 3%.

SA Water has motor vehicle leases with the South Australian Government Financing Authority (SAFA). Motor vehicle leases are non-cancellable, with rental payments paid monthly in arrears. Motor vehicle lease terms can range from 1 year up to 5 years and up to 10 years by exception on approval. The lease term can also range in duration from 60,000km up to 100,000km and 200,000km by exception. No contingent rental provisions exist within the lease agreements and no options exist to renew the leases at the end of their term.

At the date of initial application of AASB 16 Leases, where the Corporation was not reasonably certain of exercising any lease extension options, the additional term/s have not been included in the measurement of the right-of-use asset and remaining lease liability.

BOOT agreements were classified as finance leases under AASB 117 Leases, with a lease asset and lease liability being recognised upon commissioning of the underlying asset. At inception of the lease the assets were brought to account at the fair value of the underlying assets constructed and recognised as leased water and sewer infrastructure assets. The equivalent liability is recognised at the present value of the future availability charges. The impact of any estimated future escalation was not included.

In accordance with the transitional provisions of AASB 16, the Corporation is able to recognise the fair value of BOOT leased infrastructure assets recognised at 30 June 2019 as the carrying value of the right-of-use asset at 1 July 2019. After initial recognition the Corporation is required to adopt the application of AASB 16 to measure the remaining lease liability, which includes the impact of any future escalation. This has resulted in an increase in the lease liability of \$17.9m and a corresponding increase in the carrying value of the right-of-use asset at 30 June 2020 (refer note 22).

16 Other non-current assets

	2020	2019
	\$'000	\$'000
Prepayments	3,615	-
Lease incentive asset	-	221
	3,615	221

17 Current liabilities - Payables

	2020	2019
	\$'000	\$'000
Interest payable	60,793	80,809
Trade creditors	91,984	131,983
Other creditors	14,612	12,688
	167,389	225,480

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

18 Current liabilities - Financial liabilities/borrowings

	2020	2019
	\$'000	\$'000
Lease liabilities	27,312	12,470
Short term borrowings	29,974	27,175
	57,286	39,645

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

	2020 \$'000	2019 \$'000
Provision for current income tax movements during the year were as follows:		
Opening balance at 1 July	6,785	10,167
Income tax paid	(102,636)	(100,425)
Current year's income tax provision	106,294	97,042
Amounts under provided in prior years	1	1
	10,444	6,785

20 Current liabilities - Provisions

	2020 \$'000	2019 \$'000
Employee benefits	17,377	15,814
Asset disposal	1,340	60
Damages and claims	401	404
Workers compensation	1,946	1,092
	21,064	17,370

(a) *Movements in provisions*

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

2020 Current	Asset disposal \$'000	Damages and claims \$'000	Workers compensation \$'000	Total \$'000
Opening balance at 1 July	60	404	1,092	1,556
Provisions recognised	-	1,138	2,199	3,337
Re-measurement adjustments	26	-	(711)	(685)
Payments made during year	(46)	(1,141)	(634)	(1,821)
Transfer from non-current provisions	1,300	-	-	1,300
Closing balance at 30 June	1,340	401	1,946	3,687

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

Employee benefits

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

Asset disposal

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

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

Damages and claims

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

20 Current liabilities - Provisions (continued)

Damages and claims (continued)

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

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

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

Workers compensation

The corporation is registered with ReturnToWorkSA as a government self-insurer and is responsible for the management and liability of all workers' compensation claims. The provision is for the estimated cost of ongoing payments to employees as required under current legislation. The Corporation's provision is an actuarial estimate of the outstanding liability as at 30 June 2020 provided by KPMG Actuarial Pty Ltd. SA Water is committed to early intervention and supportive of early return to work programs for our people.

21 Current liabilities - Other current liabilities

	2020 \$'000	2019 \$'000
Government grants	9,566	9,566
Lease incentives	-	133
Unearned income*	2,070	88
Deposits from customers	1,281	1,403
Contract liabilities	3,777	4,450
	16,694	15,640

* Includes \$1.8m for Adelaide Desalination Plant CSO funding received in advance under the Water for Fodder program.

22 Non-current liabilities - Financial liabilities/borrowings

	2020 \$'000	2019 \$'000
Lease liabilities	136,955	36,551
Long term borrowings	6,937,000	6,635,000
	7,073,955	6,671,551

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*.

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

SA Water's debt portfolio is managed in line with the requirements outlined in the Treasury Risk Management Policy. The policy is approved by the State Treasurer and the SA Water Board. SA Water's Treasury Risk Management Committee (TRMC) is responsible for the management of the debt portfolio within the requirements of this policy. Under a Client Service Agreement between SAFA and SA Water, SAFA is a member of this Committee and executes debt transactions on behalf of SA Water.

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

The movements in the lease liability (current and non-current) relating to the right-of-use asset are set out below:

	Land \$'000	Buildings \$'000	Plant and equipment \$'000	Infrastructure assets \$'000	Total \$'000
Opening balance at 1 July 2019	585	114,143	6,056	49,021	169,805
Interest expense	21	3,727	148	6,386	10,282
Additions	-	-	3,383	-	3,383
Remeasurement	-	-	-	17,863	17,863
Write off on disposal	-	-	(79)	-	(79)
Lease payments	(18)	(9,944)	(3,577)	(23,448)	(36,987)
Closing net book amount at 30 June 2020	588	107,926	5,931	49,822	164,267

The lease payments included in the measurement of the lease liability comprise fixed payments (including in-substance fixed payments) and variable lease payments that depend on an index or rate less any lease incentives.

23 Non-current liabilities - Deferred tax liabilities

	2020 \$'000	2019 \$'000
The balance comprises temporary differences attributable to:		
Prepayments	1,872	1,867
Lease incentive asset	84	84
Infrastructure, plant and equipment	(65,275)	(54,389)
Right-of-use asset	(3,876)	-
Finance lease receivable	(235)	-
	(67,430)	(52,438)
<i>Amounts recognised directly in equity</i>		
Revaluation of infrastructure, plant and equipment	1,376,706	1,729,679
Right-of-use asset - initial adoption of AASB 16	27,449	-
Finance lease receivable - initial adoption of AASB 16	1,321	-
Leased infrastructure assets	4,298	-
Lease incentive asset	(84)	-
	1,409,690	1,729,679
<i>Recognition of leases - AASB 16</i>		
Recognition of new leases	1,015	-
	1,015	-
Total deferred tax liabilities	1,343,275	1,677,241
	2020 \$'000	2019 \$'000
Movements:		
Opening balance	1,677,241	1,662,569
Credited to the Statement of Comprehensive Income (note 7)	(14,994)	(16,787)
Charged to equity (note 29(a) & 29(b))	(319,987)	31,459
Recognition of new leases - AASB 16	1,015	-
Closing balance at 30 June	1,343,275	1,677,241
Deferred tax liabilities to be settled within 12 months	2,146	1,885
Deferred tax liabilities expected to be settled after more than 12 months	1,341,129	1,675,356
	1,343,275	1,677,241

24 Non-current liabilities - Provisions

	2020 \$'000	2019 \$'000
Employee benefits	30,191	29,632
Workers compensation	2,907	2,869
Asset disposal	1,900	1,459
Lease make good	1,646	-
	36,644	33,960

(a) *Movements in provisions*

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

2020 Non-current	Workers compensation \$'000	Asset disposal \$'000	Lease make good \$'000	Total \$'000
Opening balance at 1 July	2,869	1,459	1,647	5,975
Transfer to current provisions	-	(1,300)	-	(1,300)
Re-measurement adjustments	38	1,741	-	1,779
Closing balance at 30 June	2,907	1,900	1,647	6,454

Employee benefits

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

The Corporation's long service leave liability for 30 June 2020 was valued by KPMG Actuarial Pty Ltd.

Lease make good

The opening balance of the lease make good provision stems from recognising leases in accordance now with AASB 16. It is the expected cost of returning the properties to their original condition.

25 Non-current liabilities - Other non-current liabilities

	2020 \$'000	2019 \$'000
Government grants	342,323	351,619
Lease incentives	-	443
	342,323	352,062

26 Reconciliation of cash

2020	2019
\$'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	4,844	2,772
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Cash on hand and at bank is stated at nominal value. For the purposes of the statement of cash flows, cash includes cash on hand and at bank.

(a) Fair Value

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

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

	2020 \$'000	2019 \$'000
Net profit for the year	223,086	192,843
Add/(less) non-cash items:		
Depreciation and amortisation	362,047	360,594
Amortisation of government grant revenue	(9,331)	(9,313)
Contributed assets	(32,483)	(24,174)
Net (gain) on disposal of infrastructure, plant and equipment	(166)	(190)
Net (gain) on disposal of temporary water allocations	(501)	(13,248)
Infrastructure, plant and equipment revaluation decrement reversal	(79)	(553)
Infrastructure, plant and equipment revaluation decrement	1,062	-
Write-off in value of infrastructure, plant and equipment and capital WIP	8,260	4,025
Net loss on disposal of renewable energy certificates	217	5,228
Change in assets and liabilities:		
Decrease/(increase) in receivables	12,336	(30,880)
(Increase) in prepayments	(2,931)	(1,286)
(Increase)/decrease in inventories	(430)	620
(Increase) in other operating assets	(2,125)	(4,051)
Decrease in derivative financial assets	-	21
Decrease/(increase) in deferred tax assets	1,286	(620)
(Decrease) in trade creditors	(13,744)	(3,814)
Increase provision for employee benefits	2,122	2,634
Increase in provision for workers compensation	892	337
(Decrease)/increase in other operating liabilities	(21,505)	16,005
Increase in government grants	35	42
Increase in other provisions	1,718	1,864
(Decrease) in deferred tax liabilities	(14,994)	(16,786)
Increase/(decrease) in income tax payable	3,659	(3,381)
Net cash inflow from operating activities	518,431	475,917

28 Capital risk management

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

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

The gearing ratios based on continuing operations at 30 June 2020 and 30 June 2019 were as follows:

	2020 \$'000	2019 \$'000
Interest bearing borrowings (note 18, 22)	7,131,241	6,711,196
Less: cash and cash equivalents (note 26)	(4,844)	(2,772)
Net debt	7,126,397	6,708,424
Total assets	13,866,068	14,666,041
Gearing ratio	51.4%	45.8%

SA Water is required by the SA Government to adjust its borrowings each year prior to 30 June, to maintain a debt/asset gearing ratio of at least 45%. This commenced from the year ended 30 June 2017, and requires SA Water to make an additional return to the State Government, transacted as a specified dividend, as directed by the Treasurer, of an amount equivalent to the required incremental increase in borrowings.

The gearing ratio has been impacted by the decrement of the asset revaluation surplus, which is why the gearing ratio exceeds the debt/asset target ratio of at least 45%.

29 Asset revaluation surplus and retained earnings

(a) *Asset revaluation surplus*

	2020 \$'000	2019 \$'000
Revaluation surplus - infrastructure, plant and equipment	4,299,115	5,111,844
	4,299,115	5,111,844

Movements:

Infrastructure, plant and equipment revaluation surplus

Opening balance at 1 July	5,111,844	5,049,757
Revaluation of infrastructure, plant and equipment*	(1,162,845)	116,837
Movements in deferred tax liability (note 23)	352,973	(31,459)
Transfer to retained profits on disposal	(2,869)	(22,594)
Movements in deferred tax assets (note 11)	12	(697)
Closing balance at 30 June	4,299,115	5,111,844

*The 2018/19 revaluation increase (approximately 0.8%) is primarily attributable to the revaluation increment of pipe assets, wastewater treatment plants, desalination plant and water filtration plants.

*The 2019/20 revaluation decrease (approximately 8%) is attributable to the revaluation of system infrastructure assets that includes SA Water's network assets, treatment plants for both water and wastewater, storage related assets and buildings and depots.

(b) *Retained earnings*

Movements in retained earnings were as follows:

Opening balance at 1 July	307,734	271,749
Profit for the year	223,086	192,843
Dividends (note 33)	(228,087)	(179,360)
Transfers from asset revaluation surplus	2,869	22,594
Adjustment on initial adoption of AASB 9	-	(131)
Adjustment on initial adoption of AASB 16	(26,165)	-
Movement in deferred tax asset (note 11)	36,557	39
Movement in deferred tax liability (note 23)	(28,686)	-
Leased infrastructure assets (note 11 & 23)	(5,359)	-
Closing balance at 30 June	281,949	307,734

(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.

30 Commitments and contingencies

(a) *Capital commitments*

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

	2020 \$'000	2019 \$'000
Within one year	158,135	334,021
Later than one year but not later than five years	61,067	5,207
	219,202	339,228

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

(b) *Operating lease commitments*

	2020 \$'000	2019 \$'000
Commitments for minimum lease payments in relation to non-cancellable operating leases are committed as follows:		
Within one year	-	16,200
Later than one year but not later than five years	-	50,170
Later than five years	-	976
	-	67,346

Operating lease commitments is provided for comparative purposes only.

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

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

(c) *Other expenditure commitments*

	2020 \$'000	2019 \$'000
Future other expenditure commitments not provided for in the financial statements are committed as follows:		
Within one year	170,111	199,896
Later than one year but not later than five years	103,886	239,891
Later than five years	207,416	235,248
	481,413	675,035

Other expenditure commitments include commitments pursuant to contracts to:

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

30 Commitments and contingencies (continued)

(c) *Other expenditure commitments (continued)*

(d) *Finance leases*

	2020 \$'000	2019 \$'000
Commitments in relation to finance leases are payable as follows:		
Within one year	-	17,584
Later than one year but not later than five years	-	39,988
Later than five years	-	6,067
Minimum lease payments	-	63,639
Future finance charges	-	(14,618)
Recognised as a liability	-	49,021
Representing lease liabilities:		
Current (note 18)	-	12,470
Non-current (note 22)	-	36,551
	-	49,021
The present value of finance lease liabilities is as follows:		
Within one year	-	12,470
Later than one year but not later than five years	-	30,934
Later than five years	-	5,617
Minimum lease payments	-	49,021

Finance lease commitments is provided for comparative purposes only.

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:

	2020 \$'000	2019 \$'000
Within one year	-	5,925
Later than one year but not later than five years	-	14,286
Later than five years	-	2,332
	-	22,543

Contingent rentals commitments is provided for comparative purposes only.

(f) *Other contingencies*

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

31 Joint Operation

Jointly controlled operations

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

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

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

	2020 \$'000	2019 \$'000
Current assets		
Cash and cash equivalents	58	48
Receivables	31	4
Total current assets	89	52
Non-current assets		
Infrastructure, plant and equipment	1,445	1,507
Total assets	1,534	1,559
Current liabilities		
Payables	65	42
Total liabilities	65	42
Net assets	1,469	1,517

32 Remuneration of auditors

	2020 \$'000	2019 \$'000
Audit fees paid/payable:		
SA Water annual Public Finance and Audit Act audit	497	441
SA Water regulatory financial statements audit*	11	11
	508	452

* Pursuant to *Water Industry Guideline Number 2* and confirmation from ESCOSA, a full Audit Opinion Certificate on the Corporation's special purpose (regulatory) financial statements is not required. An 'Agreed Upon Procedures Report' has been determined to be the appropriate audit assurance to SA Water's Board and Management.

33 Dividends

	2020 \$'000	2019 \$'000
Dividend paid	228,087	179,360
	228,087	179,360

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.

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.

SA Water is required by the SA Government to adjust its borrowings each year prior to 30 June, to maintain a debt/asset gearing ratio of a minimum of 45%. This is transacted as a specified dividend.

There was no specified dividend to be paid for the year ended 30 June 2019 and the year ended 30 June 2020, in recognition that SA Water's debt/asset gearing ratio was maintained above the predetermined gearing target of 45% (refer to note 28).

As part of the 2019/20 State budget process, SA Water's payout ratio for dividend was increased from 95% to 100% in line with a State Government initiative to increase payout ratios across government owned entities. This commenced for the financial year ending 30 June 2019.

34 Remuneration of employees

	Current employees 2020	Ex-Employees 2020	Current employees 2019	Ex-Employees 2019
The number of employees whose remuneration paid and payables falls within the following bands is:				
\$151,000 - 154,000*	n/a	n/a	12	-
\$154,001 - 174,000	55	3	58	1
\$174,001 - 194,000	38	-	31	2
\$194,001 - 214,000	9	-	7	2
\$214,001 - 234,000	8	-	5	-
\$234,001 - 254,000	1	-	1	1
\$254,001 - 274,000	1	-	2	-
\$274,001 - 294,000	2	1	-	1
\$294,001 - 314,000	1	1	3	2
\$314,001 - 334,000	-	1	-	1
\$334,001 - 354,000	3	2	-	1
\$354,001 - 374,000	-	1	-	-
\$374,001 - 394,000	-	-	1	-
\$394,001 - 414,000	-	1	1	1
\$414,001 - 434,000	1	1	1	1
\$434,001 - 454,000	-	1	-	-
\$454,001 - 474,000	1	-	-	-
\$534,001 - 554,000	-	-	-	1
\$574,001 - 594,000	-	-	1	-
Total	120	12	123	14

*This band has been included for the purposes of reporting comparative figures based on the executive base level remuneration rate for 2018-19.

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 \$26.5m (2019: \$27.1m).

2020	2019
\$'000	\$'000

Targeted voluntary separation packages (TVSPs)

Amount paid during the reporting period to separated employees:

TVSPs	1,292	472
Annual leave and long service leave paid to those employees	1,013	338
Net cost to SA Water	2,305	810

The number of employees who received TVSPs during the reporting period was 10 (2019: 4).

35 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 34 and 36.

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

	2020 Number of directors	2019 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:		
\$0 - \$19,999	1	3
\$20,000 - \$39,999	1	-
\$40,000 - \$59,999	4	5
\$60,000 - \$79,999	-	1
\$80,000 - \$99,999	1	-
	7	9

The total remuneration paid and payable for those directors was \$0.30m (2019: \$0.30m) which includes superannuation contributions.

36 Related party disclosures

(a) *Directors*

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

Mr A.V Fletcher AO; Mr J.J Bastian AM; Ms S.M Filby; Ms J.M.H Finlay; Ms F.A Hele; Mr I.F Stirling (to 2 August 2019); Mr R.J.G.A Cheroux (to 16 August 2019); Mr C.J Ford (from 3 August 2019) and Mr D.A Ryan (from 11 November 2019).

Mr Fletcher is currently a non-executive director of Justin Pty Ltd and associated companies and Rheinmetall Defence Australia Pty Ltd (Supervisory Board), director/shareholder of Andrew Fletcher and Associates Pty Ltd and associated companies, and the chair of Cryoclock Pty Ltd.

Mr Bastian is currently chair of Techgrow Agriculture, syndicate chair of the CEO Institute, owner and irrigation customer of SA Water for Bastian's Block - Clare Valley Vineyard, chair of the Spencer Gulf Ecosystem and Development Initiative, and a member of the Women's and Children's Local Health Network Board. Mr Bastian was a director for CH4 South Australia Pty Ltd (a subsidiary of CH4 Global Ltd - NZ).

Ms Filby is currently a facilitator for Behind Closed Doors and a volunteer at Calvary Health Care. Ms Filby was a temporary member of the SA Planning Commission Public Hearing Panels, and the external chair for the SA Power Networks Customer Consultative Committee until December 2019.

Ms Finlay is currently a director of Leveque Consulting Pty Ltd and director and shareholder for Leveque Investments Pty Ltd, member of the Libraries Board SA, director of St John's Ambulance Australia SA Incorporated, chair of the SA Community Care Committee of St John's Ambulance Australia SA, member of the University of Adelaide Council, and committee member for the University of Adelaide Finance and Infrastructure Committee. Ms Finlay was previously a member of the State Planning Commission.

Ms Hele is a director and shareholder of the Sealink Travel Group, director for Celsus Securitisation Pty Ltd, board member of the Adelaide Venue Management Corporation, and director and shareholder of Hele Investments Pty Ltd.

Mr Ford is a senior executive with the SA Power Networks and Enerven.

Mr Ryan holds the position of Chief Executive and director of the corporation. He is currently a director of the Water Services Association of Australia.

Mr Stirling ceased being a director of the South Australian Water Corporation on 2 August 2019. During his time with the Corporation he was the chair and director of A Noble and Son Limited group of companies, and executive chairman of Stirling Advisory Pty Ltd whose clients previously included Ausnet Services and Hastings Funds Management. Mr Stirling was previously a director of the Adelaide Botanic Gardens Foundation, and an independent member of the Air Warfare Destroyers LT Sustainment Board (Department for Defence - DDG SPO).

Mr Cheroux ceased his position with the South Australian Water Corporation on 16 August 2019. During his time as Chief Executive and director of the corporation he was a director of the Water Services Association of Australia, a member of the Advisory Council of the French-Australian Chamber of Commerce (FACCI), and member of the Advisory Committee of the Australian Water Partnership. Mr Cheroux was previously a member of the French Engagement Advisory Group (SA).

36 Related party disclosures (continued)

(b) *Key management personnel*

Key management personnel compensation for the years ended 30 June 2020 and 2019 is set out below. The key management personnel are the directors of the Corporation (including the Chief Executive) and the Senior Leadership Team (SLT) who have responsibility for the strategic direction and management of the Corporation.

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

	Number of key management personnel	Short-term benefits \$'000	Post-employment benefits \$'000	Long-term benefits \$'000	Termination benefits \$'000	Total \$'000
2020*	18	2,889	223	-	-	3,112
2019*	17	3,030	281	65	163	3,539

*Both 2020 and 2019 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.

Drinking water quality data

Table 1

2019-20 metropolitan Adelaide source water quality (inlets to water treatment plants)

Parameter	Samples	Min	Max	Ave*	Samples	Min	Max	Ave*
Anstey Hill WTP					Hope Valley WTP			
Colour – True (456nm) [HU]	12	5	9	7	10	8	16	11
Dissolved Organic Carbon [mg/L]	50	2.4	7.1	3.6	48	2.8	5.2	4.1
Fluoride [mg/L]	12	<0.1	0.23	<0.1	10	0.17	0.23	0.20
Hardness – Total [mg/L]	14	98	112	107	14	90	125	108
Nitrate as Nitrogen [mg/L]	26	0.001	0.283	0.034	27	0.001	0.473	0.089
pH [pH units]	12	7.0	8.0	7.4	10	7.5	8.5	7.9
Phosphorus – Total [mg/L]	26	0.013	0.074	0.027	27	0.007	0.174	0.027
Total Dissolved Solids [mg/L]	12	122	348	179	10	249	432	300
Turbidity [NTU]	12	5.1	65	39	10	1.4	11	4.2
Barossa WTP					Little Para WTP			
Colour – True (456nm) [HU]	12	10	18	13	9	6	9	7
Dissolved Organic Carbon [mg/L]	53	6.7	10.8	8.3	39	3.4	4.2	3.8
Fluoride [mg/L]	12	0.27	0.32	0.30	9	0.17	0.20	0.19
Hardness – Total [mg/L]	14	92	113	101	14	69	99	87
Nitrate as Nitrogen [mg/L]	27	0.001	0.035	0.011	27	0.041	0.184	0.117
pH [pH units]	12	7.5	8.0	7.7	9	7.0	8.0	7.6
Phosphorus – Total [mg/L]	27	<0.005	0.040	0.016	27	0.013	0.168	0.040
Total Dissolved Solids [mg/L]	12	312	381	327	9	227	333	267
Turbidity [NTU]	12	0.24	1.4	0.72	9	12	21	17
Happy Valley WTP					Myponga WTP			
Colour – True (456nm) [HU]	12	9	31	17	12	29	57	40
Dissolved Organic Carbon [mg/L]	52	3.6	6.3	4.7	53	10.5	13.1	11.6
Fluoride [mg/L]	12	0.17	0.23	0.20	12	0.17	0.22	0.19
Hardness – Total [mg/L]	14	63	93	80	13	108	132	119
Nitrate as Nitrogen [mg/L]	27	0.002	0.193	0.074	26	0.002	0.158	0.054
pH [pH units]	12	7.3	8.8	7.9	12	7.5	8.2	7.8
Phosphorus – Total [mg/L]	27	0.018	0.065	0.041	26	0.025	0.119	0.042
Total Dissolved Solids [mg/L]	15	187	283	245	12	353	395	371
Turbidity [NTU]	12	3.4	66	23	12	0.87	4.8	2.0

* Limit of reporting (LOR) values replaced with half LOR prior to calculating average.

Table 2

2019-20 metropolitan Adelaide distribution system customer tap water quality against Australian Drinking Water Guidelines

Parameter	Health Guideline	Aesthetic Guideline	Samples	Min	Max	Ave*	% Compliance [#]
Anstey Hill Metro System							
Chlorine Residual – Free [mg/L]	≤ 5	-	220	<0.1	1.3	0.3	100
Chlorine Residual – Free [mg/L]	-	≤ 0.6	220	<0.1	1.3	0.3	90.9
Colour – True [HU]	-	≤ 15	4	<1	<1	<1	100
<i>E. coli</i> [per cfu/100mL]	++	-	219	0	0	0	100
Fluoride [mg/L]	≤ 1.5	-	4	<0.1	0.94	0.69	100
Hardness – Total [mg/L]	-	≤ 200	4	47	53	50	100
Iron – Total [mg/L]	-	≤ 0.3	4	0.0047	0.0142	0.0081	100
Manganese – Total [mg/L]	≤ 0.5	-	4	0.0003	0.0004	0.0004	100
Manganese – Total [mg/L]	-	≤ 0.1	4	0.0003	0.0004	0.0004	100
pH Units	-	6.5 - 8.5	12	7.1	7.7	7.5	100
Total Dissolved Solids [mg/L]	-	≤ 600	4	148	207	167	100
Trihalomethanes – Total [µg/L]	≤ 250	-	53	42	137	65	100
Turbidity [NTU]	-	≤ 5	12	<0.1	0.40	<0.1	100
Barossa Metro System							
Chlorine Residual – Free [mg/L]	≤ 5	-	97	<0.1	1.6	0.5	100
Chlorine Residual – Free [mg/L]	-	≤ 0.6	97	<0.1	1.6	0.5	76.3
Colour – True [HU]	-	≤ 15	4	<1	1	<1	100
<i>E. coli</i> [per cfu/100mL]	++	-	97	0	0	0	100
Fluoride [mg/L]	≤ 1.5	-	4	0.25	0.89	0.56	100
Hardness – Total [mg/L]	-	≤ 200	4	112	129	123	100
Iron – Total [mg/L]	-	≤ 0.3	4	0.0023	0.0052	0.0042	100
Manganese – Total [mg/L]	≤ 0.5	-	4	0.0003	0.0010	0.0005	100
Manganese – Total [mg/L]	-	≤ 0.1	4	0.0003	0.0010	0.0005	100
pH Units	-	6.5 - 8.5	12	7.0	7.6	7.3	100
Total Dissolved Solids [mg/L]	-	≤ 600	4	348	377	360	100
Trihalomethanes – Total [µg/L]	≤ 250	-	42	104	163	133	100
Turbidity [NTU]	-	≤ 5	12	<0.1	<0.1	<0.1	100

Table 2 — continued

Parameter	Health Guideline	Aesthetic Guideline	Samples	Min	Max	Ave*	% Compliance [#]
Central Metro System							
Chlorine Residual – Free [mg/L]	≤ 5	-	1,162	<0.1	2.2	0.4	100
Chlorine Residual – Free [mg/L]	-	≤ 0.6	1,162	<0.1	2.2	0.4	83.0
Colour – True [HU]	-	≤ 15	26	<1	1	<1	100
<i>E. coli</i> [per cfu/100mL]	++	-	1,162	0	0	0	100
Fluoride [mg/L]	≤ 1.5	-	26	0.22	0.94	0.84	100
Hardness – Total [mg/L]	-	≤ 200	26	39	111	73	100
Iron – Total [mg/L]	-	≤ 0.3	28	0.0022	0.0293	0.0087	100
Manganese – Total [mg/L]	≤ 0.5	-	26	<0.0001	0.0035	0.0008	100
Manganese – Total [mg/L]	-	≤ 0.1	26	<0.0001	0.0035	0.0008	100
pH Units	-	6.5 - 8.5	74	7.0	8.2	7.5	100
Total Dissolved Solids [mg/L]	-	≤ 600	26	97	316	220	100
Trihalomethanes – Total [µg/L]	≤ 250	-	206	<4	140	73	100
Turbidity [NTU]	-	≤ 5	74	<0.1	1.3	<0.1	100
East Metro System							
Chlorine Residual – Free [mg/L]	≤ 5	-	489	<0.1	1.2	0.4	100
Chlorine Residual – Free [mg/L]	-	≤ 0.6	24	<0.1	1.2	0.4	84.7
Colour – True [HU]	-	≤ 15	487	<1	1	<1	100
<i>E. coli</i> [per cfu/100mL]	++	-	24	0	0	0	100
Fluoride [mg/L]	≤ 1.5	-	24	<0.1	0.91	0.81	100
Hardness – Total [mg/L]	-	≤ 200	25	44	117	72	100
Iron – Total [mg/L]	-	≤ 0.3	24	0.0029	0.0522	0.0109	100
Manganese – Total [mg/L]	≤ 0.5	-	24	<0.0001	0.0022	0.0008	100
Manganese – Total [mg/L]	-	≤ 0.1	24	<0.0001	0.0022	0.0008	100
pH Units	-	6.5 - 8.5	69	7.1	8.0	7.5	100
Total Dissolved Solids [mg/L]	-	≤ 600	24	117	353	214	100
Trihalomethanes – Total [µg/L]	≤ 250	-	98	5	146	78	100
Turbidity [NTU]	-	≤ 5	80	<0.1	3.6	0.13	100

Table 2 — continued

Parameter	Health Guideline	Aesthetic Guideline	Samples	Min	Max	Ave*	% Compliance [#]
Myponga Metro System							
Chlorine Residual — Free [mg/L]	≤ 5	-	63	<0.1	0.5	0.2	100
Chlorine Residual — Free [mg/L]	-	≤ 0.6	63	<0.1	0.5	0.2	100
Colour — True [HU]	-	≤ 15	4	1	2	1	100
<i>E. coli</i> [per cfu/100mL]	++	-	63	0	0	0	100
Fluoride [mg/L]	≤ 1.5	-	4	0.30	0.84	0.62	100
Hardness — Total [mg/L]	-	≤ 200	4	112	123	117	100
Iron — Total [mg/L]	-	≤ 0.3	4	0.0047	0.0104	0.0079	100
Manganese — Total [mg/L]	≤ 0.5	-	4	0.0006	0.0009	0.0008	100
Manganese — Total [mg/L]	-	≤ 0.1	4	0.0008	0.0034	0.0017	100
pH Units	-	6.5 - 8.5	12	7.2	7.8	7.4	100
Total Dissolved Solids [mg/L]	-	≤ 600	4	408	439	420	100
Trihalomethanes — Total [µg/L]	≤ 250	-	24	58	253	178	100
Turbidity [NTU]	-	≤ 5	12	<0.1	0.12	<0.1	100
North Metro System							
Chlorine Residual — Free [mg/L]	≤ 5	-	555	<0.1	1.2	0.4	100
Chlorine Residual — Free [mg/L]	-	≤ 0.6	555	<0.1	1.2	0.4	84.0
Colour — True [HU]	-	≤ 15	24	<1	1	<1	100
<i>E. coli</i> [per cfu/100mL]	++	-	555	0	0	0	100
Fluoride [mg/L]	≤ 1.5	-	24	0.13	0.94	0.73	100
Hardness — Total [mg/L]	-	≤ 200	24	46	137	95	100
Iron — Total [mg/L]	-	≤ 0.3	24	0.0024	0.0491	0.0085	100
Manganese — Total [mg/L]	≤ 0.5	-	24	0.0001	0.0017	0.0006	100
Manganese — Total [mg/L]	-	≤ 0.1	24	<0.0001	0.0012	0.0005	100
pH Units	-	6.5 - 8.5	72	7.0	8.0	7.4	100
Total Dissolved Solids [mg/L]	-	≤ 600	73	126	433	329	100
Trihalomethanes — Total [µg/L]	≤ 250	-	102	22	177	101	100
Turbidity [NTU]	-	≤ 5	72	<0.1	0.34	<0.1	100

Table 2 — continued

Parameter	Health Guideline	Aesthetic Guideline	Samples	Min	Max	Ave*	% Compliance [#]
South Metro System							
Chlorine Residual – Free [mg/L]	≤ 5	-	135	<0.1	1.0	0.3	100
Chlorine Residual – Free [mg/L]	-	≤ 0.6	135	<0.1	1.0	0.3	96.3
Colour – True [HU]	-	≤ 15	4	<1	<1	<1	100
<i>E. coli</i> [per cfu/100mL]	++	-	135	0	0	0	100
Fluoride [mg/L]	≤ 1.5	-	4	0.83	0.90	0.86	100
Hardness – Total [mg/L]	-	≤ 200	4	43	101	73	100
Iron – Total [mg/L]	-	≤ 0.3	4	0.0037	0.0056	0.0048	100
Manganese – Total [mg/L]	≤ 0.5	-	4	0.0002	0.0008	0.0005	100
Manganese – Total [mg/L]	-	≤ 0.1	4	0.0002	0.0008	0.0005	100
pH Units	-	6.5 - 8.5	12	7.3	7.9	7.5	100
Total Dissolved Solids [mg/L]	-	≤ 600	4	99	296	209	100
Trihalomethanes – Total [µg/L]	≤ 250	-	60	7	190	94	100
Turbidity [NTU]	-	≤ 5	12	<0.1	0.11	<0.1	100
West Metro System							
Chlorine Residual – Free [mg/L]	≤ 5	-	665	<0.1	1.6	0.4	100
Chlorine Residual – Free [mg/L]	-	≤ 0.6	665	<0.1	1.6	0.4	87.4
Colour – True [HU]	-	≤ 15	24	<1	1	<1	100
<i>E. coli</i> [per cfu/100mL]	++	-	503	0	0	0	100
Fluoride [mg/L]	≤ 1.5	-	24	0.11	0.89	0.68	100
Hardness – Total [mg/L]	-	≤ 200	24	37	122	80	100
Iron – Total [mg/L]	-	≤ 0.3	24	0.0019	0.1194	0.0150	100
Manganese – Total [mg/L]	≤ 0.5	-	24	0.0001	0.0039	0.0010	100
Manganese – Total [mg/L]	-	≤ 0.1	24	0.0001	0.0039	0.0010	100
pH Units	-	6.5 - 8.5	72	7.0	8.2	7.4	100
Total Dissolved Solids [mg/L]	-	≤ 600	316	86	356	223	100
Trihalomethanes – Total [µg/L]	≤ 250	-	121	<4	133	81	100
Turbidity [NTU]	-	≤ 5	72	<0.1	0.54	<0.1	100

Table 2 — continued

Parameter	Health Guideline	Aesthetic Guideline	Samples	Min	Max	Ave*	% Compliance [#]
Metropolitan Adelaide – Total Distribution System							
Chlorine Residual – Free [mg/L]	≤ 5	-	3,386	<0.1	2.2	0.4	100
Chlorine Residual – Free [mg/L]	-	≤ 0.6	3,386	<0.1	2.2	0.4	85.4
Colour – True [HU]	-	≤ 15	114	<1	2	<1	100
<i>E. coli</i> [per cfu/100mL]	++	-	3,221	0	0	0	100
Fluoride [mg/L]	≤ 1.5	-	114	<0.1	0.94	0.76	100
Hardness – Total [mg/L]	-	≤ 200	114	37	137	81	100
Iron – Total [mg/L]	-	≤ 0.3	117	0.0019	0.1194	0.0102	100
Manganese – Total [mg/L]	≤ 0.5	-	114	<0.0001	0.0039	0.0008	100
Manganese – Total [mg/L]	-	≤ 0.1	114	<0.0001	0.0039	0.0008	100
pH Units	-	6.5 - 8.5	335	7.0	8.2	7.5	100
Total Dissolved Solids [mg/L]	-	≤ 600	455	86	439	241	100
Trihalomethanes – Total [µg/L]	≤ 250	-	706	<4	253	87	100
Turbidity [NTU]	-	≤ 5	346	<0.1	3.6	<0.1	100

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

* Limit of reporting (LOR) values replaced with half LOR prior to calculating average.

[#] Prior to calculating compliance for health related chemicals, individual water sample test results are rounded to the same number of significant figures as the ADWG value (as prescribed in the ADWG and endorsed by SA Health).

Table 3

2019-20 country source water quality

System	Total Dissolved Solid [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	78	168	115	-	-	-	2.0	3.7	2.6	7.0	8.4	7.8
Barossa WTP	312	381	327	92	113	101	6.7	10.8	8.3	7.5	8.0	7.7
Beachport IRP	650	683	668	268	280	274	0.9	1.0	1.0	7.3	7.6	7.5
Berri WTP	66	128	99	-	-	-	2.0	4.0	2.6	6.6	8.5	7.5
Blanchetown WTP	85	207	135	-	-	-	2.3	4.2	2.9	7.1	8.3	7.7
Bordertown	387	700	482	222	282	242	0.6	0.9	0.7	7.2	7.6	7.4
Cadell WTP	85	538	141	-	-	-	2.1	3.2	2.6	7.0	8.2	7.6
Coffin Bay	343	491	396	204	214	210	0.4	0.5	0.4	7.7	7.8	7.8
Cowirra WTP	111	200	144	-	-	-	2.3	5.0	3.0	7.0	7.9	7.5
Elliston	577	1030	738	258	343	279	0.4	0.7	0.5	7.3	7.6	7.4
Eyre South	443	1340	686	220	509	299	0.4	0.9	0.6	7.0	7.8	7.3
Geranium	1310	1550	1450	558	580	569	0.8	0.8	0.8	7.0	7.1	7.1
Glossop WTP	66	128	99	-	-	-	2.0	4.0	2.6	6.6	8.5	7.5
Happy Valley WTP	187	283	245	63	93	80	3.6	6.3	4.7	7.3	8.8	7.9
Hawker Desalination WTP	2210	2640	2410	949	1090	1020	0.5	0.5	0.5	7.2	7.7	7.4
Kalangadoo IRP	530	550	543	346	356	351	1.1	1.1	1.1	7.2	7.4	7.3
Kanmantoo WTP	123	224	155	36	48	43	2.3	3.8	3.1	6.9	7.6	7.3
Kingston SE IRP	756	1050	880	201	242	222	0.9	0.9	0.9	7.4	7.8	7.6
Lameroo IRP	918	1020	964	223	227	225	0.5	0.5	0.5	7.5	8.2	7.9
Leigh Creek WTP	1920	5240	2730	480	1620	879	0.3	1.1	0.7	7.1	7.8	7.5
Loxton WTP	67	168	111	-	-	-	2.1	4.3	2.8	7.2	8.2	7.8
Lucindale IRP	817	846	832	302	305	304	2.3	2.4	2.4	7.5	7.7	7.6
Mannum WTP	112	213	146	35	49	41	2.5	6.4	3.5	7.1	7.9	7.5
Melrose	1210	1840	1530	273	416	345	0.5	0.5	0.5	7.3	7.5	7.4
Middle River WTP	457	817	573	70	165	104	12.6	20.0	14.6	6.7	7.7	7.2
Millicent	583	683	631	350	377	364	1.1	1.5	1.3	7.5	7.7	7.6
Moorook WTP	72	195	115	-	-	-	2.2	3.7	2.8	7.2	8.2	7.7
Morgan WTP	89	269	136	26	47	38	1.2	4.1	2.5	7.0	8.7	7.8
Mt Burr	410	491	451	265	321	293	0.5	0.5	0.5	7.4	7.6	7.5
Mt Compass	119	472	188	43	60	52	<0.3	<0.3	<0.3	6.2	7.3	6.5
Mt Gambier	348	644	529	172	299	216	0.8	1.4	1.0	7.4	8.4	8.0
Mt Pleasant WTP	112	213	146	35	49	41	2.5	6.4	3.5	7.1	7.9	7.5
Murray Bridge WTP	123	224	155	36	48	43	2.3	3.8	3.1	6.9	7.6	7.3
Mypolonga WTP	117	221	151	-	-	-	2.4	3.4	2.9	7.0	7.6	7.3

Table 3 — continued

System	Total Dissolved Solid [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*
Myponga WTP	353	395	371	108	132	119	10.5	13.1	11.6	7.5	8.2	7.8
Nangwarry	530	666	606	336	411	374	1.1	1.3	1.2	7.1	7.5	7.3
Naracoorte	1230	1340	1280	311	389	350	1.5	1.9	1.7	7.7	7.9	7.8
Padthaway	1410	1670	1580	588	592	590	0.7	0.8	0.8	7.1	7.4	7.3
Palmer WTP	112	213	146	35	49	41	2.5	6.4	3.5	7.1	7.9	7.5
Parachilna	817	846	833	306	306	306	<0.3	<0.3	<0.3	7.6	7.8	7.7
Parilla IRP	340	705	627	178	183	181	0.4	0.6	0.5	7.4	8.0	7.7
Penneshaw WTP	37300	40300	38700	-	-	-	1.1	1.4	1.3	7.9	8.2	8.0
Penola IRP	644	689	663	299	317	308	1.4	3.1	2.3	7.3	7.5	7.5
Pinnaroo IRP	633	801	715	235	247	242	0.5	0.5	0.5	7.5	7.7	7.6
Port MacDonnell	689	711	700	20	21	21	1.2	1.2	1.2	8.2	8.4	8.3
Quorn	1070	1410	1240	466	529	499	0.7	1.2	0.9	7.0	7.5	7.2
Renmark WTP	59	184	91	20	46	29	2.2	4.4	3.0	7.0	8.1	7.5
Robe IRP	633	986	752	68	142	118	0.9	1.1	1.0	7.6	7.9	7.8
Summit WTP	123	224	155	36	48	43	2.3	3.8	3.1	6.9	7.6	7.3
Swan Reach Town WTP	99	202	141	-	-	-	2.2	3.8	2.9	7.0	8.6	7.9
Swan Reach WTP	102	190	137	29	47	38	2.4	4.6	3.0	7.7	8.4	7.9
Tailem Bend WTP	135	275	174	39	57	47	2.4	3.9	3.2	6.9	10.0	7.4
Tarpeena IRP	644	761	701	406	406	406	1.3	1.3	1.3	7.2	7.8	7.4
Waikerie WTP	76	168	122	-	-	-	2.3	4.5	3.0	7.3	8.4	7.7
Wilmington	295	374	327	89	140	115	<0.3	0.9	0.5	6.3	6.8	6.5
Wirrina Cove WTP	1080	1670	1290	-	-	-	5.2	16.9	13.9	6.4	8.2	7.6
Woolpunda WTP	73	179	119	-	-	-	1.4	3.1	2.5	6.9	8.2	7.7

* Limit of reporting (LOR) values replaced with half LOR prior to calculating average.

Table 3 — *continued*

System	Turbidity [NTU]			Colour – True (456nm) [HU]			Nitrate as Nitrogen [mg/L]			Phosphorous – Total [mg/L]		
	Min	Max	Ave*	Min	Max	Ave*	Min	Max	Ave*	Min	Max	Ave*
Barmera WTP	19	55	36	5	11	7	-	-	-	-	-	-
Barossa WTP	0.24	1.4	0.72	10	18	13	0.001	0.035	0.011	<0.005	0.040	0.016
Beachport IRP	2.1	4.4	3.4	<1	1	<1	0.001	0.002	0.001	0.036	0.042	0.039
Berri WTP	21	53	39	5	14	8	-	-	-	-	-	-
Blanchetown WTP	11	60	35	5	15	7	-	-	-	-	-	-
Bordertown	<0.1	1.7	0.16	<1	<1	<1	0.002	0.574	0.154	0.005	0.013	0.009
Cadell WTP	17	76	39	5	10	7	-	-	-	-	-	-
Coffin Bay	<0.1	0.24	<0.1	<1	<1	<1	0.223	1.097	0.770	0.009	0.017	0.013
Cowirra WTP	24	68	44	5	9	7	-	-	-	-	-	-
Elliston	<0.1	1.1	0.11	<1	<1	<1	2.757	3.817	3.124	<0.005	0.019	0.012
Eyre South	<0.1	11	0.26	<1	1	<1	0.566	10.70	3.790	<0.005	0.029	0.010
Geranium	<0.1	0.13	<0.1	<1	<1	<1	0.026	0.083	0.055	0.036	0.047	0.042
Glossop WTP	21	53	39	5	14	8	-	-	-	-	-	-
Happy Valley WTP	3.4	66	23	9	31	17	0.002	0.193	0.074	0.018	0.065	0.041
Hawker Desalination WTP	1.6	16	8.3	<1	<1	<1	0.010	0.014	0.012	0.011	0.014	0.013
Kalangadoo IRP	1.1	6.4	4.2	<1	1	<1	0.001	0.002	0.001	0.013	0.018	0.016
Kanmantoo WTP	25	84	52	6	10	7	-	-	-	0.042	0.520	0.122
Kingston SE IRP	0.47	18	7.1	<1	1	<1	0.002	0.021	0.010	0.008	0.039	0.018
Lameroo IRP	1.6	5.8	3.2	<1	1	<1	0.002	0.004	0.003	0.053	0.061	0.057
Leigh Creek WTP	<0.1	1.4	0.23	<1	1	<1	0.362	2.107	1.162	0.005	0.030	0.014
Loxton WTP	21	66	38	4	12	7	0.001	0.012	0.003	0.042	0.185	0.087
Lucindale IRP	2.4	9.7	7.7	1	2	2	0.001	0.002	0.001	0.040	0.042	0.041
Mannum WTP	18	86	48	5	9	7	0.002	0.151	0.051	0.049	0.374	0.120
Melrose	<0.1	1.4	0.25	<1	<1	<1	0.269	0.824	0.547	0.009	0.020	0.015
Middle River WTP	1.4	17	4.2	62	175	124	0.002	0.912	0.313	0.014	0.194	0.043
Millicent	0.18	0.51	0.31	2	4	3	0.033	0.063	0.048	0.015	0.018	0.017
Moorook WTP	17	60	39	5	16	7	0.001	0.011	0.002	0.037	0.107	0.072
Morgan WTP	0.20	62	17	<1	21	4	0.001	0.038	0.015	0.006	0.256	0.071
Mt Burr	<0.1	0.20	<0.1	<1	<1	<1	0.260	1.277	0.769	0.030	0.038	0.034
Mt Compass	<0.1	0.72	0.15	<1	<1	<1	0.043	0.048	0.046	0.018	0.034	0.026
Mt Gambier	<0.1	2.1	0.48	<1	2	1	0.002	3.559	2.626	<0.005	0.037	0.013
Mt Pleasant WTP	18	86	48	5	9	7	0.002	0.151	0.051	0.049	0.374	0.120
Murray Bridge WTP	25	84	52	6	10	7	-	-	-	0.042	0.520	0.122
Mypolonga WTP	21	72	45	6	10	7	-	-	-	-	-	-

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*
Myponga WTP	0.87	4.8	2.0	29	57	40	0.002	0.158	0.054	0.025	0.119	0.042
Nangwarry	<0.1	0.12	<0.1	<1	<1	<1	1.267	3.987	2.627	0.011	0.015	0.013
Naracoorte	0.21	1.2	0.38	<1	6	5	0.002	0.002	0.002	0.059	0.069	0.065
Padthaway	<0.1	1.8	0.56	<1	<1	<1	0.043	0.075	0.059	0.011	0.014	0.013
Palmer WTP	18	86	48	5	9	7	0.002	0.151	0.051	0.049	0.374	0.120
Parachilna	<0.1	0.28	<0.1	<1	<1	<1	1.179	1.179	1.179	<0.005	<0.005	<0.005
Parilla IRP	1.3	4.4	2.8	<1	1	<1	0.002	0.002	0.002	0.033	0.044	0.039
Penneshaw WTP	<0.1	2.9	0.61	-	-	-	-	-	-	<0.005	<0.005	<0.005
Penola IRP	7.7	15	12	1	3	2	0.002	0.002	0.002	0.034	0.054	0.044
Pinnaroo IRP	0.84	6.3	3.1	<1	<1	<1	0.002	0.002	0.002	0.039	0.056	0.048
Port MacDonnell	<0.1	0.69	0.11	2	8	4	0.002	0.012	0.007	0.129	0.155	0.142
Quorn	<0.1	1.4	0.21	<1	<1	<1	0.101	0.130	0.117	0.013	0.032	0.023
Renmark WTP	22	60	40	4	14	8	0.001	0.027	0.005	0.041	0.295	0.092
Robe IRP	<0.1	5.7	1.1	<1	2	<1	0.002	0.386	0.098	0.028	0.056	0.044
Summit WTP	25	84	52	6	10	7	-	-	-	0.042	0.520	0.122
Swan Reach Town WTP	8.8	70	39	3	11	7	-	-	-	-	-	-
Swan Reach WTP	11	60	36	5	9	6	0.001	0.033	0.009	0.044	0.542	0.113
Tailem Bend WTP	25	72	47	6	19	8	-	-	-	0.044	0.230	0.104
Tarpeena IRP	0.63	19	9.4	<1	<1	<1	0.002	0.002	0.002	0.035	0.035	0.035
Waikerie WTP	18	92	47	5	14	7	0.001	0.052	0.006	0.045	0.193	0.103
Wilmington	<0.1	0.83	0.15	<1	<1	<1	0.192	0.195	0.194	0.058	0.095	0.077
Wirrina Cove WTP	1.6	7.0	4.1	4	100	48	-	-	-	-	-	-
Woolpunda WTP	22	62	39	3	10	7	-	-	-	-	-	-

* Limit of reporting (LOR) values replaced with half LOR prior to calculating average.

Table 4

2019-20 country drinking water distribution systems — customer tap water quality against Australian Drinking Water Guidelines

System	<i>E. coli</i> [per cfu/100mL]		Total Dissolved Solids [mg/L]			
	Samples	Health Compliance %	Min	Max	Ave*	Aesthetic Compliance %
ADWG value		++				≤600
Target		99.8% Free				
Barmera WTP	58	100	118	184	141	100
Barossa WTP	437	100	333	418	373	100
Beachport IRP	63	100	666	678	671	0.0
Berri WTP	64	100	105	144	126	100
Blanchetown WTP	52	100	133	163	148	100
Bordertown	57	100	277	616	468	75.0
Cadell WTP	52	100	125	191	154	100
Coffin Bay	64	100	425	480	452	100
Cowirra WTP	57	100	141	174	160	100
Elliston	51	100	666	801	740	0.0
Eyre South	372	100	419	616	566	89.5
Eyre South/Morgan WTP	242	100	328	482	416	100
Geranium	52	100	1390	1510	1460	0.0
Glossop WTP	58	100	110	141	124	100
Happy Valley WTP	60	100	175	315	244	100
Hawker Desalination WTP	49	100	375	380	378	100
Kalangadoo IRP	62	100	542	555	551	100
Kanmantoo WTP	60	100	143	239	182	100
Kingston SE IRP	62	100	846	868	857	0.0
Lameroo IRP	51	100	952	986	969	0.0
Leigh Creek WTP	75	100	82	115	98	100
Loxton WTP	70	100	105	151	136	100
Lucindale IRP	61	100	829	846	835	0.0
Mannum WTP	61	100	138	206	168	100
Melrose	52	100	1410	1600	1520	0.0
Middle River WTP	139	100	594	694	648	25.0
Millicent	77	100	616	666	637	0.0
Moorook WTP	59	100	119	148	133	100
Morgan / Swan Reach WTP	432	100	131	219	169	100
Morgan WTP	728	100	130	237	183	100
Mt Burr	52	100	452	461	456	100

Table 4 — continued

System	<i>E. coli</i> [per cfu/100mL]		Total Dissolved Solids [mg/L]			
	Samples	Health Compliance %	Min	Max	Ave*	Aesthetic Compliance %
ADWG value		++				≤600
Target		99.8% Free				
Mt Compass	58	100	229	277	251	100
Mt Gambier	155	99.4	350	367	359	100
Mt Pleasant WTP	77	100	132	192	156	100
Murray Bridge WTP	190	100	151	256	189	100
Mypolonga WTP	59	100	138	196	169	100
Myponga WTP	285	100	398	493	433	100
Nangwarry	66	100	588	610	596	75.0
Naracoorte	78	100	1270	1300	1280	0.0
Padthaway	53	100	1560	1650	1600	0.0
Palmer WTP	81	100	133	200	162	100
Parachilna	49	100	834	846	839	0.0
Parilla IRP	52	100	622	661	646	0.0
Penneshaw WTP	62	100	280	316	296	100
Penola IRP	65	100	650	678	665	0.0
Pinnaroo IRP	59	100	728	745	735	0.0
Port MacDonnell	65	100	700	705	701	0.0
Quorn	51	100	1150	1210	1180	0.0
Renmark WTP	190	100	80	144	116	100
Robe IRP	60	100	678	823	753	0.0
Summit WTP	418	100	150	237	185	100
Swan Reach Town WTP	58	100	126	193	157	100
Swan Reach WTP	367	99.7	127	212	174	100
Tailem Bend WTP	255	100	174	285	216	100
Tarpeena IRP	64	98.4	689	705	699	0.0
Waikerie WTP	58	100	118	165	140	100
Wilmington	61	100	320	381	346	100
Wirrina Cove WTP	50	100	1130	1400	1310	0.0
Woolpunda WTP	80	100	134	159	146	100

* Limit of reporting (LOR) values replaced with half LOR prior to calculating average.

++ *E. coli* should not be detected in samples of drinking water. While we aim for 100 per cent compliance, the ADWG recognises exceedances in test results can happen occasionally. Any detection is immediately investigated and corrective action taken as needed, in conjunction with SA Health.

Table 4 — continued

System	Chlorine Residual – Free [mg/L] [‡]				Chlorine Residual – Total [mg/L] [†]			
	Min	Max	Ave*	Health Compliance % [#]	Min	Max	Ave*	Health Compliance % [#]
ADWG value				≤ 5				≤ 5
Target				99.8%				99.8%
Barmera WTP	0.5	1.5	0.9	100	-	-	-	-
Barossa WTP	<0.1	3.1	0.7	100	-	-	-	-
Beachport IRP	0.7	1.7	0.9	100	-	-	-	-
Berri WTP	0.4	1.4	1.0	100	-	-	-	-
Blanchetown WTP	0.4	1.3	0.7	100	-	-	-	-
Bordertown	0.3	1.8	1.2	100	-	-	-	-
Cadell WTP	0.4	1.2	0.9	100	-	-	-	-
Coffin Bay	0.7	1.5	1.0	100	-	-	-	-
Cowirra WTP	0.6	1.9	1.3	100	-	-	-	-
Elliston	0.6	1.2	0.9	100	-	-	-	-
Eyre South	0.3	1.9	1.0	100	-	-	-	-
Eyre South/Morgan WTP	0.7	2.2	1.4	100	-	-	-	-
Geranium	0.5	1.4	1.0	100	-	-	-	-
Glossop WTP	0.5	1.5	1.0	100	-	-	-	-
Happy Valley WTP	0.3	1.6	1.1	100	-	-	-	-
Hawker Desalination WTP	1.0	1.4	1.2	100	-	-	-	-
Kalangadoo IRP	0.7	1.5	1.0	100	-	-	-	-
Kanmantoo WTP	0.6	1.5	1.1	100	-	-	-	-
Kingston SE IRP	0.6	1.9	0.9	100	-	-	-	-
Lameroo IRP	1.0	2.3	1.5	100	-	-	-	-
Leigh Creek WTP	0.2	1.4	1.1	100	-	-	-	-
Loxton WTP	-	-	-	-	3.0	4.5	3.8	100
Lucindale IRP	0.5	1.2	0.8	100	-	-	-	-
Mannum WTP	0.2	2.2	1.1	100	-	-	-	-
Melrose	0.6	1.7	1.2	100	-	-	-	-
Middle River WTP	<0.1	1.4	0.5	100	-	-	-	-
Millicent	0.5	1.3	0.8	100	-	-	-	-
Moorook WTP	0.5	1.7	1.0	100	-	-	-	-
Morgan / Swan Reach WTP	-	-	-	-	0.1	4.4	3.1	100
Morgan WTP	-	-	-	-	<0.1	4.5	3.1	100
Mt Burr	0.5	1.4	0.8	100	-	-	-	-

Table 4 — continued

System	Chlorine Residual – Free [mg/L] [†]				Chlorine Residual – Total [mg/L] [†]			
	Min	Max	Ave*	Health Compliance % [#]	Min	Max	Ave*	Health Compliance % [#]
ADWG value				≤ 5				≤ 5
Target				99.8%				99.8%
Mt Compass	0.7	1.5	1.1	100	-	-	-	-
Mt Gambier	0.4	1.4	1.0	100	-	-	-	-
Mt Pleasant WTP	<0.1	1.9	1.2	100	-	-	-	-
Murray Bridge WTP	<0.1	4.2	1.6	100	-	-	-	-
Mypolonga WTP	0.4	1.6	1.2	100	-	-	-	-
Myponga WTP	<0.1	1.4	0.3	100	1.6 ⁺⁺	3.0 ⁺⁺	2.4 ⁺⁺	100
Nangwarry	0.5	1.2	0.8	100	-	-	-	-
Naracoorte	<0.1	1.0	0.6	100	-	-	-	-
Padthaway	0.5	1.2	0.8	100	-	-	-	-
Palmer WTP	0.2	1.7	0.8	100	-	-	-	-
Parachilna	0.6	1.4	1.0	100	-	-	-	-
Parilla IRP	0.7	2.0	1.3	100	-	-	-	-
Penneshaw WTP	<0.1	2.5	1.0	100	-	-	-	-
Penola IRP	<0.1	1.4	0.9	100	-	-	-	-
Pinnaroo IRP	0.3	1.9	1.2	100	-	-	-	-
Port MacDonnell	0.7	1.3	0.9	100	-	-	-	-
Quorn	0.8	1.9	1.3	100	-	-	-	-
Renmark WTP	0.2	2.4	1.1	100	-	-	-	-
Robe IRP	0.6	1.5	0.9	100	-	-	-	-
Summit WTP	-	-	-	-	2.2	4.7	3.4	100
Swan Reach Town WTP	0.3	1.6	1.0	100	-	-	-	-
Swan Reach WTP	-	-	-	-	2.4	4.9	3.5	100
Tailem Bend WTP	-	-	-	-	0.1	4.8	3.0	100
Tarpeena IRP	0.6	1.4	0.9	100	-	-	-	-
Waikerie WTP	0.5	1.5	1.0	100	-	-	-	-
Wilmington	0.5	2.9	1.5	100	-	-	-	-
Wirrina Cove WTP	<0.1	1.5	0.5	100	-	-	-	-
Woolpunda WTP	-	-	-	-	1.0	4.3	2.6	100

[†] Chlorinated systems only.

[†] Chloraminated systems only.

⁺⁺ Myponga township chloramination.

^{*} Limit of reporting (LOR) values replaced with half LOR prior to calculating average.

[#] Prior to calculating compliance for health related chemicals, individual water sample test results are rounded to the same number of significant figures as the ADWG value (as prescribed in the ADWG and endorsed by SA Health).

While we aim for 100 per cent health compliance, the ADWG recognises exceedances in test results can happen occasionally. The ADWG states: “although concentrations of by-products should be kept as low as possible, efforts to achieve this should never jeopardise effective disinfection.” An exceedance of the health guideline is immediately investigated and corrective action taken as needed, in conjunction with SA Health.

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								
Barmera WTP	<1	<1	<1	100	<0.1	0.22	<0.1	100
Barossa WTP	<1	2	<1	100	<0.1	1.2	0.14	100
Beachport IRP	<1	<1	<1	100	<0.1	1.8	0.13	100
Berri WTP	<1	<1	<1	100	<0.1	0.39	0.11	100
Blanchetown WTP	<1	1	<1	100	0.15	0.28	0.21	100
Bordertown	<1	<1	<1	100	<0.1	0.18	<0.1	100
Cadell WTP	<1	<1	<1	100	<0.1	0.20	0.14	100
Coffin Bay	<1	<1	<1	100	<0.1	0.12	<0.1	100
Cowirra WTP	<1	<1	<1	100	<0.1	0.13	<0.1	100
Elliston	<1	<1	<1	100	<0.1	0.18	<0.1	100
Eyre South	<1	<1	<1	100	<0.1	0.41	<0.1	100
Eyre South/Morgan WTP	<1	<1	<1	100	<0.1	0.71	0.11	100
Geranium	<1	<1	<1	100	<0.1	0.14	<0.1	100
Glossop WTP	<1	<1	<1	100	<0.1	1.0	0.19	100
Happy Valley WTP	<1	<1	<1	100	<0.1	0.63	0.12	100
Hawker Desalination WTP	<1	<1	<1	100	<0.1	0.21	<0.1	100
Kalangadoo IRP	<1	<1	<1	100	<0.1	0.15	<0.1	100
Kanmantoo WTP	<1	<1	<1	100	<0.1	0.35	0.17	100
Kingston SE IRP	<1	<1	<1	100	<0.1	0.16	<0.1	100
Lameroo IRP	<1	<1	<1	100	<0.1	1.6	0.22	100
Leigh Creek WTP	<1	<1	<1	100	<0.1	1.4	0.19	100
Loxton WTP	<1	1	<1	100	<0.1	0.31	<0.1	100
Lucindale IRP	<1	<1	<1	100	<0.1	0.14	<0.1	100
Mannum WTP	<1	<1	<1	100	<0.1	0.20	<0.1	100
Melrose	<1	<1	<1	100	<0.1	0.17	<0.1	100
Middle River WTP	<1	<1	<1	100	<0.1	2.1	0.24	100
Millicent	<1	<1	<1	100	<0.1	1.3	0.10	100
Moorook WTP	<1	<1	<1	100	0.11	6.2	0.41	95.8
Morgan / Swan Reach WTP	<1	2	<1	100	<0.1	1.2	<0.1	100
Morgan WTP	<1	1	<1	100	<0.1	14	0.18	99.1
Mt Burr	<1	<1	<1	100	<0.1	0.14	<0.1	100

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								
Mt Compass	<1	<1	<1	100	<0.1	0.24	<0.1	100
Mt Gambier	<1	1	<1	100	<0.1	0.27	0.12	100
Mt Pleasant WTP	<1	<1	<1	100	<0.1	0.26	<0.1	100
Murray Bridge WTP	<1	<1	<1	100	<0.1	0.38	<0.1	100
Mypolonga WTP	<1	8	2	100	<0.1	0.16	<0.1	100
Myponga WTP	<1	2	1	100	<0.1	6.0	0.19	99.4
Nangwarry	<1	<1	<1	100	<0.1	0.68	<0.1	100
Naracoorte	<1	<1	<1	100	<0.1	1.2	0.26	100
Padthaway	<1	<1	<1	100	0.13	0.23	0.17	100
Palmer WTP	<1	<1	<1	100	<0.1	0.21	<0.1	100
Parachilna	<1	<1	<1	100	<0.1	0.16	<0.1	100
Parilla IRP	<1	2	<1	100	<0.1	0.12	<0.1	100
Penneshaw WTP	<1	<1	<1	100	<0.1	0.66	0.12	100
Penola IRP	<1	<1	<1	100	<0.1	0.29	<0.1	100
Pinnaroo IRP	<1	<1	<1	100	<0.1	1.2	0.12	100
Port MacDonnell	<1	<1	<1	100	<0.1	0.27	0.12	100
Quorn	<1	2	<1	100	<0.1	0.18	<0.1	100
Renmark WTP	<1	1	<1	100	<0.1	0.14	<0.1	100
Robe IRP	<1	<1	<1	100	<0.1	0.18	<0.1	100
Summit WTP	<1	2	1	100	<0.1	0.18	<0.1	100
Swan Reach Town WTP	<1	<1	<1	100	<0.1	0.40	0.13	100
Swan Reach WTP	<1	2	<1	100	<0.1	1.1	<0.1	100
Tailem Bend WTP	<1	2	1	100	<0.1	3.0	0.13	100
Tarpeena IRP	<1	<1	<1	100	<0.1	0.27	<0.1	100
Waikerie WTP	<1	2	<1	100	<0.1	0.19	0.10	100
Wilmington	<1	<1	<1	100	<0.1	0.41	0.18	100
Wirrina Cove WTP	<1	1	<1	100	0.18	1.4	0.48	100
Woolpunda WTP	<1	<1	<1	100	<0.1	1.9	0.17	100

* Limit of reporting (LOR) values replaced with half LOR prior to calculating average.

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								99.8%
Barmera WTP	7.1	8.0	7.7	100	46	80	62	100
Barossa WTP	7.1	8.8	7.6	93.3	91	226	157	100
Beachport IRP	7.7	7.8	7.8	100	36	36	36	100
Berri WTP	7.3	8.0	7.6	100	33	79	55	100
Blanchetown WTP	7.1	8.2	7.6	100	38	65	53	100
Bordertown	7.2	7.8	7.5	100	11	11	11	100
Cadell WTP	7.0	7.9	7.4	100	37	59	46	100
Coffin Bay	7.7	8.0	7.8	100	18	18	18	100
Cowirra WTP	7.1	8.0	7.5	100	49	83	72	100
Elliston	7.5	7.8	7.6	100	11	11	11	100
Eyre South	7.0	8.0	7.6	100	9	71	21	100
Eyre South/Morgan WTP	7.6	8.2	7.9	100	51	168	102	100
Geranium	6.9	7.2	7.1	100	<4	<4	<4	100
Glossop WTP	7.2	8.0	7.8	100	29	54	44	100
Happy Valley WTP	7.3	8.7	7.9	92.0	39	153	114	100
Hawker Desalination WTP	7.9	8.1	8.0	100	9	9	9	100
Kalangadoo IRP	7.3	7.6	7.4	100	47	47	47	100
Kanmantoo WTP	7.2	7.9	7.5	100	55	90	66	100
Kingston SE IRP	7.5	7.7	7.6	100	43	43	43	100
Lameroo IRP	7.1	8.0	7.7	100	26	26	26	100
Leigh Creek WTP	7.8	9.4	8.6	47.5	<4	<4	<4	100
Loxton WTP	8.2	9.0	8.7	15.4	-	-	-	-
Lucindale IRP	7.6	7.8	7.7	100	116	116	116	100
Mannum WTP	7.1	7.8	7.5	100	42	85	56	100
Melrose	7.3	7.6	7.5	100	8	8	8	100
Middle River WTP	6.8	7.8	7.3	100	22	343	135	91.7
Millicent	7.5	7.9	7.7	100	70	70	70	100
Moorook WTP	7.6	8.0	7.9	100	42	60	52	100
Morgan / Swan Reach WTP	8.0	10.0	9.2	1.1	-	-	-	-
Morgan WTP	6.9	9.8	8.6	26.9	39	147	80	100
Mt Burr	7.6	8.1	7.8	100	9	9	9	100

Table 4 — continued

System	pH [pH Units]			Aesthetic Compliance %	Trihalomethanes – Total [µg/L] [^]			Health Compliance % [#]
	Min	Max	Ave*		Min	Max	Ave*	
ADWG value				6.5 - 8.5				≤ 250
Target								99.8%
Mt Compass	7.2	8.0	7.6	100	<4	<4	<4	100
Mt Gambier	8.0	8.3	8.2	100	27	31	29	100
Mt Pleasant WTP	7.3	7.9	7.7	100	62	125	90	100
Murray Bridge WTP	7.1	8.8	7.5	99.2	53	144	96	100
Mypolonga WTP	7.1	7.8	7.5	100	75	125	94	100
Myponga WTP	7.1	8.8	7.8	88.5	161	273	215	85.4
Nangwarry	7.4	7.6	7.5	100	21	21	21	100
Naracoorte	7.7	7.9	7.8	100	173	205	188	100
Padthaway	7.4	7.8	7.6	100	10	10	10	100
Palmer WTP	7.2	8.5	8.0	100	58	115	85	100
Parachilna	7.9	8.3	8.0	100	9	9	9	100
Parilla IRP	7.5	7.9	7.8	100	17	17	17	100
Penneshaw WTP	7.5	8.0	7.8	100	<4	<4	<4	100
Penola IRP	7.5	7.6	7.5	100	55	55	55	100
Pinnaroo IRP	7.5	7.8	7.6	100	19	19	19	100
Port MacDonnell	8.0	8.2	8.1	100	78	78	78	100
Quorn	7.2	7.5	7.3	100	7	8	8	100
Renmark WTP	7.1	9.2	7.9	71.1	24	99	60	100
Robe IRP	7.7	7.9	7.8	100	56	56	56	100
Summit WTP	8.0	9.1	8.7	23.1	-	-	-	-
Swan Reach Town WTP	7.3	7.8	7.6	100	40	89	61	100
Swan Reach WTP	7.3	9.5	8.9	12.5	-	-	-	-
Tailem Bend WTP	7.6	9.5	8.7	36.9	-	-	-	-
Tarpeena IRP	7.6	7.8	7.7	100	26	26	26	100
Waikerie WTP	7.4	8.0	7.7	100	46	74	59	100
Wilmington	6.5	7.8	7.2	100	27	27	27	100
Wirrina Cove WTP	6.9	7.5	7.2	100	256	437	332	0.0
Woolpunda WTP	8.4	9.6	9.1	11.1	-	-	-	-

[^] Chlorinated systems only.

^{*} Limit of reporting (LOR) values replaced with half LOR prior to calculating average.

[#] Prior to calculating compliance for health related chemicals, individual water sample test results are rounded to the same number of significant figures as the ADWG value (as prescribed in the ADWG and endorsed by SA Health).

While we aim for 100 per cent health compliance, the ADWG recognises exceedances in test results can happen occasionally. The ADWG states: "although concentrations of by-products should be kept as low as possible, efforts to achieve this should never jeopardise effective disinfection." An exceedance of the health guideline is immediately investigated and corrective action taken as needed, in conjunction with SA Health.

[†] Chloraminated systems are run at a higher pH to improve chlorine residual persistence.

Table 4 — continued

System	Fluoride [mg/L]				Iron – Total [mg/L]			
	Min	Max	Ave*	Health Compliance % [#]	Min	Max	Ave*	Aesthetic Compliance %
ADWG value				≤ 1.5				≤ 0.3
Target				99.8%				
Barmera WTP	0.87	0.92	0.90	100	0.0119	0.0311	0.0169	100
Barossa WTP	0.23	0.94	0.69	100	0.0038	0.1730	0.0363	100
Beachport IRP	0.22	0.25	0.23	100	0.0017	0.0362	0.0080	100
Berri WTP	0.87	0.90	0.89	100	0.0109	0.2303	0.0732	100
Blanchetown WTP	<0.1	<0.1	<0.1	100	0.0104	0.0195	0.0163	100
Bordertown	0.30	0.33	0.32	100	0.0005	0.0143	0.0026	100
Cadell WTP	<0.1	<0.1	<0.1	100	0.0095	0.0137	0.0117	100
Coffin Bay	0.87	1.2	1.0	100	<0.0005	0.0022	0.0011	100
Cowirra WTP	<0.1	0.12	<0.1	100	0.0081	0.0235	0.0146	100
Elliston	0.57	0.68	0.63	100	<0.0005	0.0013	0.0009	100
Eyre South	0.42	1.2	0.53	100	<0.0005	0.0188	0.0021	100
Eyre South/Morgan WTP	0.49	0.67	0.58	100	0.0010	0.0059	0.0035	100
Geranium	0.99	1.1	1.1	100	0.0071	0.0215	0.0147	100
Glossop WTP	<0.1	<0.1	<0.1	100	0.0090	0.0192	0.0145	100
Happy Valley WTP	0.65	0.91	0.83	100	0.0069	0.0732	0.0244	100
Hawker Desalination WTP	<0.1	0.11	<0.1	100	0.0011	0.0053	0.0027	100
Kalangadoo IRP	0.11	0.13	0.12	100	0.0012	0.0256	0.0098	100
Kanmantoo WTP	<0.1	0.1	<0.1	100	0.0012	0.0055	0.0029	100
Kingston SE IRP	0.28	0.32	0.30	100	0.0010	0.0146	0.0051	100
Lameroo IRP	0.54	0.62	0.59	100	0.0163	0.3240	0.0461	91.7
Leigh Creek WTP	<0.1	<0.1	<0.1	100	0.0097	0.0653	0.0345	100
Loxton WTP	0.89	0.96	0.91	100	0.0010	0.0038	0.0023	100
Lucindale IRP	0.31	0.33	0.32	100	<0.0005	0.0080	0.0038	100
Mannum WTP	0.86	0.89	0.88	100	0.0092	0.0331	0.0219	100
Melrose	1.0	1.1	1.1	100	0.0017	0.0079	0.0054	100
Middle River WTP	<0.1	<0.1	<0.1	100	0.0109	0.0774	0.0394	100
Millicent	0.97	1.1	1.0	100	0.0093	0.2855	0.0813	100
Moorook WTP	<0.1	<0.1	<0.1	100	0.0052	0.0105	0.0081	100
Morgan / Swan Reach WTP	0.33	0.96	0.80	100	0.0029	0.0241	0.0083	100
Morgan WTP	0.39	0.91	0.83	100	<0.0005	0.1550	0.0280	100
Mt Burr	0.25	0.26	0.25	100	0.0019	0.0077	0.0037	100

Table 4 — continued

System	Fluoride [mg/L]				Iron – Total [mg/L]			
	Min	Max	Ave*	Health Compliance % [#]	Min	Max	Ave*	Aesthetic Compliance %
ADWG value				≤ 1.5				≤ 0.3
Target				99.8%				
Mt Compass	0.22	0.25	0.24	100	0.0014	0.0028	0.0019	100
Mt Gambier	0.85	0.94	0.89	100	<0.0005	0.0053	0.0008	100
Mt Pleasant WTP	0.86	0.91	0.88	100	0.0008	0.0013	0.0011	100
Murray Bridge WTP	0.86	0.96	0.92	100	0.0032	0.1180	0.0203	100
Mypolonga WTP	<0.1	<0.1	<0.1	100	0.0071	0.0175	0.0125	100
Myponga WTP	0.11	0.85	0.61	100	0.0017	0.0404	0.0116	100
Nangwarry	<0.1	0.14	0.11	100	<0.0005	0.0019	0.0008	100
Naracoorte	1.2	1.2	1.2	100	0.0722	0.2283	0.1380	100
Padthaway	0.10	0.13	0.12	100	0.0149	0.0164	0.0157	100
Palmer WTP	<0.1	0.11	<0.1	100	0.0039	0.0088	0.0064	100
Parachilna	0.59	0.63	0.61	100	0.0026	0.0046	0.0036	100
Parilla IRP	0.44	0.46	0.45	100	0.0032	0.0200	0.0095	100
Penneshaw WTP	<0.1	<0.1	<0.1	100	0.0007	0.0025	0.0015	100
Penola IRP	0.18	0.20	0.19	100	0.0022	0.2512	0.0440	100
Pinnaroo IRP	0.68	0.73	0.70	100	0.0007	0.0234	0.0112	100
Port MacDonnell	0.76	0.81	0.79	100	0.0021	0.0042	0.0034	100
Quorn	0.57	0.60	0.59	100	<0.0005	0.0106	0.0028	100
Renmark WTP	0.86	0.96	0.90	100	0.0016	0.0235	0.0087	100
Robe IRP	0.29	0.36	0.31	100	0.0013	0.0152	0.0041	100
Summit WTP	0.83	0.94	0.88	100	0.0008	0.0277	0.0076	100
Swan Reach Town WTP	<0.1	<0.1	<0.1	100	0.0197	0.1322	0.0495	100
Swan Reach WTP	0.55	0.95	0.88	100	0.0005	0.0047	0.0023	100
Tailem Bend WTP	0.85	1.0	0.93	100	0.0015	0.0092	0.0045	100
Tarpeena IRP	0.17	0.21	0.20	100	0.0014	0.1035	0.0187	100
Waikerie WTP	0.87	0.91	0.89	100	0.0103	0.0251	0.0172	100
Wilmington	0.15	0.19	0.17	100	0.0115	0.0724	0.0393	100
Wirrina Cove WTP	<0.1	0.14	0.11	100	0.0191	0.3881	0.1132	75.0
Woolpunda WTP	<0.1	<0.1	<0.1	100	0.0014	0.0110	0.0059	100

* Limit of reporting (LOR) values replaced with half LOR prior to calculating average.

[#] Prior to calculating compliance for health related chemicals, individual water sample test results are rounded to the same number of significant figures as the ADWG value (as prescribed in the ADWG and endorsed by SA Health).

Table 4 — continued

System	Manganese – Total [mg/L]					Hardness – Total [mg/L]			
	Min	Max	Ave*	Health Compliance % [#]	Aesthetic Compliance %	Min	Max	Ave*	Aesthetic Compliance %
ADWG value				≤ 0.5	≤ 0.1				≤ 200
Target				99.8%					
Barmera WTP	0.0015	0.0023	0.0020	100	100	32	44	36	100
Barossa WTP	0.0004	0.0087	0.0017	100	100	114	141	125	100
Beachport IRP	0.0004	0.0038	0.0013	100	100	270	287	275	0.0
Berri WTP	0.0020	0.0040	0.0027	100	100	30	36	32	100
Blanchetown WTP	0.0008	0.0013	0.0011	100	100	36	46	40	100
Bordertown	<0.0001	<0.0001	<0.0001	100	100	244	270	261	0.0
Cadell WTP	0.0005	0.0006	0.0006	100	100	34	47	39	100
Coffin Bay	<0.0001	0.0003	0.0002	100	100	223	248	234	0.0
Cowirra WTP	0.0002	0.0005	0.0004	100	100	36	46	43	100
Elliston	<0.0001	<0.0001	<0.0001	100	100	275	306	291	0.0
Eyre South	<0.0001	0.0004	<0.0001	100	100	172	305	264	5.3
Eyre South/Morgan WTP	<0.0001	0.0009	0.0004	100	100	132	197	178	100
Geranium	0.0001	0.0003	0.0002	100	100	569	580	576	0.0
Glossop WTP	0.0002	0.0005	0.0003	100	100	29	39	33	100
Happy Valley WTP	0.0002	0.0009	0.0007	100	100	60	86	73	100
Hawker Desalination WTP	0.0002	0.0005	0.0004	100	100	107	114	111	100
Kalangadoo IRP	<0.0001	0.0001	<0.0001	100	100	339	352	347	0.0
Kanmantoo WTP	0.0002	0.0006	0.0004	100	100	38	53	47	100
Kingston SE IRP	0.0001	0.0006	0.0003	100	100	225	241	235	0.0
Lameroo IRP	0.0008	0.0011	0.0009	100	100	223	235	229	0.0
Leigh Creek WTP	0.0003	0.0023	0.0011	100	100	3	7	5	100
Loxton WTP	0.0008	0.0018	0.0012	100	100	25	36	31	100
Lucindale IRP	<0.0001	<0.0001	<0.0001	100	100	308	315	311	0.0
Mannum WTP	0.0016	0.0086	0.0043	100	100	36	49	42	100
Melrose	<0.0001	0.0001	<0.0001	100	100	328	363	351	0.0
Middle River WTP	0.0006	0.0271	0.0085	100	100	78	141	100	100
Millicent	0.0004	0.0084	0.0026	100	100	353	389	371	0.0
Moorook WTP	<0.0001	0.0010	0.0007	100	100	30	40	35	100
Morgan / Swan Reach WTP	<0.0001	0.0035	0.0016	100	100	34	56	44	100
Morgan WTP	0.0007	0.0046	0.0020	100	100	30	65	48	100
Mt Burr	<0.0001	0.0002	0.0001	100	100	285	307	294	0.0

Table 4 — continued

System	Manganese – Total [mg/L]					Hardness – Total [mg/L]			
	Min	Max	Ave*	Health Compliance % [#]	Aesthetic Compliance %	Min	Max	Ave*	Aesthetic Compliance %
ADWG value				≤ 0.5	≤ 0.1				≤ 200
Target				99.8%					
Mt Compass	<0.0001	0.0002	0.0002	100	100	51	57	55	100
Mt Gambier	<0.0001	0.0001	<0.0001	100	100	166	194	178	100
Mt Pleasant WTP	0.0001	0.0004	0.0002	100	100	36	46	42	100
Murray Bridge WTP	0.0006	0.0029	0.0013	100	100	49	59	53	100
Mypolonga WTP	0.0003	0.0006	0.0005	100	100	37	51	45	100
Myponga WTP	0.0002	0.0095	0.0011	100	100	113	125	119	100
Nangwarry	<0.0001	0.0001	<0.0001	100	100	364	393	381	0.0
Naracoorte	0.0115	0.0158	0.0137	100	100	334	376	357	0.0
Padthaway	0.0003	0.0005	0.0004	100	100	568	605	591	0.0
Palmer WTP	0.0001	0.0003	0.0002	100	100	37	49	44	100
Parachilna	<0.0001	0.0002	0.0001	100	100	295	305	302	0.0
Parilla IRP	<0.0001	0.0004	0.0002	100	100	175	185	180	100
Penneshaw WTP	0.0003	0.0031	0.0013	100	100	51	67	61	100
Penola IRP	0.0003	0.0022	0.0008	100	100	310	327	318	0.0
Pinnaroo IRP	<0.0001	0.0007	0.0002	100	100	237	253	244	0.0
Port MacDonnell	0.0007	0.0008	0.0008	100	100	19	22	21	100
Quorn	<0.0001	0.0006	0.0002	100	100	491	521	502	0.0
Renmark WTP	0.0007	0.0080	0.0020	100	100	24	40	31	100
Robe IRP	<0.0001	0.0002	<0.0001	100	100	112	134	119	100
Summit WTP	0.0009	0.0055	0.0031	100	100	38	55	47	100
Swan Reach Town WTP	0.0003	0.0023	0.0009	100	100	30	46	39	100
Swan Reach WTP	0.0004	0.0047	0.0021	100	100	40	56	47	100
Tailem Bend WTP	0.0005	0.0025	0.0012	100	100	45	72	58	100
Tarpeena IRP	0.0002	0.0079	0.0024	100	100	384	409	396	0.0
Waikerie WTP	0.0016	0.0036	0.0023	100	100	31	42	36	100
Wilmington	0.0003	0.0019	0.0007	100	100	116	135	124	100
Wirrina Cove WTP	0.0177	0.0675	0.0432	100	100	218	296	263	0.0
Woolpunda WTP	0.0003	0.0017	0.0008	100	100	35	40	37	100

* Limit of reporting (LOR) values replaced with half LOR prior to calculating average.

[#] Prior to calculating compliance for health related chemicals, individual water sample test results are rounded to the same number of significant figures as the ADWG value (as prescribed in the ADWG and endorsed by SA Health).

Table 5

2019-20 remote Aboriginal communities source water quality

System Name	Total Dissolved Solids [mg/L]			Hardness – Total [mg/L]			pH [pH Units]		
	Min	Max	Ave*	Min	Max	Ave*	Min	Max	Ave*
Amata ⁺⁺	511	1100	669	281	533	361	7.4	7.6	7.5
Davenport [^]	-	-	-	-	-	-	-	-	-
Gerard [#]	-	-	-	-	-	-	-	-	-
Indulkana ⁺⁺	1360	1540	1470	385	547	465	6.7	7.1	6.9
Kalka ⁺⁺	-	-	-	-	-	-	-	-	-
Kaltjiti ⁺⁺	420	1320	1030	281	397	329	7.6	7.9	7.7
Kanpi ⁺⁺	980	1310	1210	196	587	459	7.4	7.8	7.6
Mimili ⁺⁺	316	1450	919	149	285	213	7.6	8.0	7.8
Murputja ⁺⁺	840	890	868	328	342	334	7.4	7.5	7.4
Nepabunna ⁺	-	-	-	-	-	-	-	-	-
Nyapari ⁺⁺	524	930	768	134	310	235	7.6	7.6	7.6
Oak Valley ⁺	-	-	-	-	-	-	-	-	-
Pipalyatjara ⁺⁺	722	733	729	393	437	410	7.6	7.6	7.6
Pt Pearce [^]	-	-	-	-	-	-	-	-	-
Pukatja ⁺⁺	395	711	564	198	336	253	7.4	8.2	7.7
Raukkan [^]	-	-	-	-	-	-	-	-	-
Umuwa ⁺⁺	335	422	366	209	231	221	7.6	8.0	7.7
Watinuma ⁺⁺	694	1040	886	300	410	335	7.6	7.8	7.7
Yalata	8950	10200	9400	3160	4050	3420	6.5	6.9	6.7
Yunyarinyi ⁺⁺	367	520	478	188	251	230	8.0	8.1	8.0

* Limit of reporting (LOR) values replaced with half LOR prior to calculating average.

[^] System supplied from another SA Water supply. Refer to data in Country Source Water Quality Table 3. Davenport supplied from Morgan WTP, Point Pearce supplied from Morgan / Swan Reach WTP, and Raukkan supplied from Tailem Bend WTP.[#] Refer to Loxton WTP data in Country Source Water Quality Table 3.⁺ System sourced from rainwater.⁺⁺ Due to COVID-19 travel restrictions to remote Aboriginal communities, the fourth quarter sampling run to the APY Lands was cancelled.

Table 5 — continued

System Name	Colour – True (456nm) [HU]			Fluoride [mg/L]			Nitrate + Nitrite as Nitrogen [mg/L]			Turbidity [NTU]		
	Min	Max	Ave*	Min	Max	Ave*	Min	Max	Ave*	Min	Max	Ave*
Amata ⁺⁺	<1	<1	<1	0.65	1.2	0.97	1.38	6.59	3.19	<0.1	0.56	0.16
Davenport [^]	-	-	-	-	-	-	-	-	-	-	-	-
Gerard [#]	-	-	-	-	-	-	-	-	-	-	-	-
Indulkana ⁺⁺	<1	<1	<1	0.42	0.55	0.49	6.73	8.75	7.81	<0.1	1.6	0.52
Kalka ⁺⁺	<1	<1	<1	0.77	0.77	0.77	9.77	9.77	9.77	0.12	0.12	0.12
Kaltjiti ⁺⁺	<1	<1	<1	1.2	1.7	1.5	7.58	10.2	8.90	<0.1	1.3	0.28
Kanpi ⁺⁺	<1	<1	<1	1.4	2.0	1.6	3.22	6.22	4.08	0.13	7.8	2.3
Mimili ⁺⁺	<1	1	<1	1.7	2.5	2.0	0.450	17.2	14.1	<0.1	200	18
Murputja ⁺⁺	<1	1	<1	3.1	3.2	3.1	1.98	2.76	2.25	<0.1	0.18	<0.1
Nepabunna ⁺	<1	<1	<1	-	-	-	-	-	-	0.75	0.75	0.75
Nyapari ⁺⁺	<1	<1	<1	2.0	2.5	2.2	1.90	4.58	3.56	0.35	1.1	0.61
Oak Valley ⁺	<1	<1	<1	-	-	-	-	-	-	0.85	0.85	0.85
Pipalyatjara ⁺⁺	<1	<1	<1	0.66	0.71	0.69	6.27	6.84	6.63	<0.1	1.2	0.34
Pt Pearce [^]	-	-	-	-	-	-	-	-	-	-	-	-
Pukatja ⁺⁺	<1	<1	<1	0.95	1.8	1.3	0.501	2.35	1.17	<0.1	0.20	0.11
Raukkan [^]	-	-	-	-	-	-	-	-	-	-	-	-
Umuwa ⁺⁺	<1	<1	<1	0.73	1.0	0.91	2.59	5.24	3.66	<0.1	0.28	<0.1
Watinuma ⁺⁺	<1	<1	<1	1.0	1.4	1.2	3.64	4.24	3.97	<0.1	0.16	0.10
Yalata	<1	2	1	0.37	0.78	0.49	0.351	1.09	0.862	<0.1	8.0	2.1
Yunyarinyi ⁺⁺	<1	<1	<1	1.6	1.7	1.6	3.04	7.51	5.31	<0.1	0.16	<0.1

* Limit of reporting (LOR) values replaced with half LOR prior to calculating average.

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

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

⁺ System sourced from rainwater.

⁺⁺ Due to COVID-19 travel restrictions to remote Aboriginal communities, the fourth quarter sampling run to the APY Lands was cancelled.

Table 6

2019-20 remote Aboriginal communities drinking water distribution systems – customer tap water quality against Australian Drinking Water Guidelines

System	E. coli [per cfu/100mL]		Total Dissolved Solids [mg/L]			
	Samples	Health Compliance % [#]	Min	Max	Ave [*]	Aesthetic Compliance %
ADWG Value		++				≤600
Target		99.8% Free				
Amata ⁺⁺	3	100	761	761	761	0.0
Davenport	10	100	202	202	202	100
Gerard	11	100	119	119	119	100
Indulkana ⁺⁺	3	100	122	122	122	100
Kalka ⁺⁺	3	100	577	577	577	100
Kaltjiti ⁺⁺	2	100	-	-	-	-
Kanpi ⁺⁺	3	100	1260	1260	1260	0.0
Mimili ⁺⁺	2	100	739	739	739	0.0
Murputja ⁺⁺	3	100	264	264	264	100
Nepabunna	3	100	93	93	93	100
Nyapari ⁺⁺	2	100	272	272	272	100
Oak Valley	4	100	28	28	28	100
Pipalyatjara ⁺⁺	3	100	745	745	745	0.0
Pt Pearce	12	100	181	181	181	100
Pukatja ⁺⁺	3	100	622	622	622	0.0
Raukkan	10	100	229	229	229	100
Umuwa ⁺⁺	3	100	375	375	375	100
Watinuma ⁺⁺	3	100	789	789	789	0.0
Yalata	4	100	126	126	126	100
Yunyarinyi ⁺⁺	3	100	143	143	143	100

⁺⁺ E. coli should not be detected.

^{*} Limit of reporting (LOR) values replaced with half LOR prior to calculating average.

⁺⁺ Due to COVID-19 travel restrictions to remote Aboriginal communities, the fourth quarter sampling run to the APY Lands was cancelled.

Table 6 — continued

System	Chlorine Residual – Free [mg/L] [^]				Chlorine Residual – Total [mg/L] [†]			
	Min	Max	Ave*	Health Compliance % [#]	Min	Max	Ave*	Health Compliance % [#]
ADWG Value				≤ 5				≤ 5
Target				99.8%				99.8%
Amata ⁺⁺	-	-	-	-	-	-	-	-
Davenport	-	-	-	-	2.7	3.7	3.2	100
Gerard	0.2	0.9	0.6	100	-	-	-	-
Indulkana ⁺⁺	-	-	-	-	-	-	-	-
Kalka ⁺⁺	-	-	-	-	-	-	-	-
Kaltjiti ⁺⁺	-	-	-	-	-	-	-	-
Kanpi ⁺⁺	-	-	-	-	-	-	-	-
Mimili ⁺⁺	-	-	-	-	-	-	-	-
Murputja ⁺⁺	-	-	-	-	-	-	-	-
Nepabunna	-	-	-	-	-	-	-	-
Nyapari ⁺⁺	-	-	-	-	-	-	-	-
Oak Valley	-	-	-	-	-	-	-	-
Pipalyatjara ⁺⁺	-	-	-	-	-	-	-	-
Pt Pearce	-	-	-	-	2.0	3.1	2.7	100
Pukatja ⁺⁺	-	-	-	-	-	-	-	-
Raukkan	-	-	-	-	1.8	3.2	2.6	100
Umuwa ⁺⁺	-	-	-	-	-	-	-	-
Watinuma ⁺⁺	-	-	-	-	-	-	-	-
Yalata	-	-	-	-	-	-	-	-
Yunyarinyi ⁺⁺	-	-	-	-	-	-	-	-

A majority of the remote Aboriginal communities use UV as the primary mode of disinfection.

[^] Chlorinated systems only.

[†] Chloraminated systems only.

^{*} Limit of reporting (LOR) values replaced with half LOR prior to calculating average.

[#] Prior to calculating compliance for health related chemicals, individual water sample test results are rounded to the same number of significant figures as the ADWG value (as prescribed in the ADWG and endorsed by SA Health).

⁺⁺ Due to COVID 19-travel restrictions to remote Aboriginal communities, the fourth quarter sampling run to the APY Lands was cancelled.

Table 6 — continued

System	Colour – True (456nm) [HU]				Turbidity [NTU]			
	Min	Max	Ave*	Aesthetic Compliance %	Min	Max	Ave*	Aesthetic Compliance %
ADWG Value	≤ 15				≤ 5			
Target								
Amata ⁺⁺	<1	<1	<1	100	0.16	0.16	0.16	100
Davenport [^]	-	-	-	-	<0.1	1.4	0.35	100
Gerard	4	4	4	100	0.33	8.5	1.5	100
Indulkana ⁺⁺	<1	<1	<1	100	1.3	1.3	1.3	100
Kalka ⁺⁺	<1	<1	<1	100	0.13	0.13	0.13	100
Kaltjiti ⁺⁺	-	-	-	-	-	-	-	-
Kanpi ⁺⁺	<1	<1	<1	100	0.15	0.15	0.15	100
Mimili ⁺⁺	<1	<1	<1	100	<0.1	<0.1	<0.1	100
Murputja ⁺⁺	<1	<1	<1	100	0.14	0.14	0.14	100
Nepabunna	<1	<1	<1	100	0.27	0.27	0.27	100
Nyapari ⁺⁺	<1	<1	<1	100	<0.1	<0.1	<0.1	100
Oak Valley	<1	<1	<1	100	0.48	0.48	0.48	100
Pipalyatjara ⁺⁺	<1	<1	<1	100	<0.1	<0.1	<0.1	100
Pt Pearce [^]	-	-	-	-	<0.1	0.17	<0.1	100
Pukatja ⁺⁺	<1	<1	<1	100	0.22	0.22	0.22	100
Raukkan [^]	-	-	-	-	<0.1	0.27	0.11	100
Umuwa ⁺⁺	<1	<1	<1	100	0.18	0.18	0.18	100
Watinuma ⁺⁺	<1	<1	<1	-100	<0.1	<0.1	<0.1	100
Yalata	<1	<1	<1	100	<0.1	<0.1	<0.1	100
Yunyarinyi ⁺⁺	<1	<1	<1	100	0.10	0.10	0.10	100

* Limit of reporting (LOR) values replaced with half LOR prior to calculating average.

[^] System supplied from another SA Water supply. Refer to data in Country Supply Table 4. Davenport supplied from Morgan WTP, Point Pearce supplied from Morgan / Swan Reach WTP, and Raukkan supplied from Taillem Bend WTP.

⁺⁺ Due to COVID-19 travel restrictions to remote Aboriginal communities, the fourth quarter sampling run to the APY Lands was cancelled.

Table 6 — 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					99.8%			
Amata ⁺⁺	7.8	7.8	7.8	100	-	-	-	-
Davenport	8.9	9.3	9.1	0.0	-	-	-	-
Gerard	7.2	7.9	7.7	100	57	107	81	100
Indulkana ⁺⁺	7.6	7.6	7.6	100	-	-	-	-
Kalka ⁺⁺	8.0	8.0	8.0	100	-	-	-	-
Kaltjiti ⁺⁺	-	-	-	-	-	-	-	-
Kanpi ⁺⁺	7.9	7.9	7.9	100	-	-	-	-
Mimili ⁺⁺	8.0	8.0	8.0	100	-	-	-	-
Murputja ⁺⁺	7.8	7.8	7.8	100	-	-	-	-
Nepabunna	6.9	6.9	6.9	100	-	-	-	-
Nyapari ⁺⁺	8.2	8.2	8.2	100	-	-	-	-
Oak Valley	7.0	7.0	7.0	100	-	-	-	-
Pipalyatjara ⁺⁺	7.9	7.9	7.9	100	-	-	-	-
Pt Pearce	9.0	9.5	9.3	0.0	-	-	-	-
Pukatja ⁺⁺	7.8	7.8	7.8	100	-	-	-	-
Raukkan	8.2	8.8	8.6	50.0	-	-	-	-
Umuwa ⁺⁺	8.0	8.0	8.0	100	-	-	-	-
Watinuma ⁺⁺	7.9	7.9	7.9	100	-	-	-	-
Yalata	7.6	7.6	7.6	100	-	-	-	-
Yunyarinyi ⁺⁺	8.2	8.2	8.2	100	-	-	-	-

* Limit of reporting (LOR) values replaced with half LOR prior to calculating average.

^ Chlorinated systems only.

Prior to calculating compliance for health related chemicals, individual water sample test results are rounded to the same number of significant figures as the ADWG value (as prescribed in the ADWG and endorsed by SA Health).

++ Due to COVID-19 travel restrictions to remote Aboriginal communities, the fourth quarter sampling run to the APY Lands was cancelled.

Table 6 — continued

System	Fluoride [mg/L]				Iron – Total [mg/L]			
	Min	Max	Ave*	Health Compliance % [#]	Min	Max	Ave*	Aesthetic Compliance %
ADWG Value				≤ 1.5				≤ 0.3
Target				99.8%				
Amata ⁺⁺	0.88	0.92	0.89	100	0.0059	0.0059	0.0059	100
Davenport [^]	-	-	-	-	-	-	-	-
Gerard	<0.1	<0.1	<0.1	100	0.1825	0.1825	0.1825	100
Indulkana ⁺⁺	<0.1	<0.1	<0.1	100	0.0503	0.0503	0.0503	100
Kalka ⁺⁺	0.89	0.89	0.89	100	0.0012	0.0012	0.0012	100
Kaltjiti ⁺⁺	0.50	0.52	0.51	100	-	-	-	-
Kanpi ⁺⁺	1.5	1.6	1.6	33.3	0.0058	0.0058	0.0058	100
Mimili ⁺⁺	0.55	1.4	1.1	100	0.0036	0.0036	0.0036	-
Murputja ⁺⁺	0.48	3.1	1.4	66.6	0.0021	0.0021	0.0021	100
Nepabunna	0.30	0.30	0.30	100	0.2161	0.2161	0.2161	100
Nyapari ⁺⁺	0.46	0.47	0.47	100	0.0094	0.0094	0.0094	100
Oak Valley	<0.1	<0.1	<0.1	100	0.0025	0.0025	0.0025	100
Pipalyatjara ⁺⁺	0.38	0.38	0.38	100	0.0015	0.0015	0.0015	100
Pt Pearce [^]	-	-	-	-	-	-	-	-
Pukatja ⁺⁺	1.0	1.3	1.1	100	0.0129	0.0129	0.0129	100
Raukkan [^]	-	-	-	-	-	-	-	-
Umuwa ⁺⁺	0.88	0.88	0.88	100	0.0043	0.0043	0.0043	100
Watinuma ⁺⁺	1.2	1.3	1.3	100	<0.0005	<0.0005	<0.0005	100
Yalata	<0.1	<0.1	<0.1	100	<0.0005	<0.0005	<0.0005	100
Yunyarinyi ⁺⁺	0.36	0.60	0.45	100	0.0269	0.0269	0.0269	100

* Limit of reporting (LOR) values replaced with half LOR prior to calculating average.

[#] Prior to calculating compliance for health related chemicals, individual water sample test results are rounded to the same number of significant figures as the ADWG value (as prescribed in the ADWG and endorsed by SA Health).

While we aim for 100 per cent health compliance, the ADWG recognises exceedances in test results can happen occasionally. Most health guidelines for chemicals are based on a lifetime of exposure, therefore even if the compliance figures in this report are less than 100 per cent, it does not mean your water is not safe to drink. An exceedance of the health guideline is immediately investigated and corrective action taken as needed, in conjunction with SA Health.

[^] System supplied from another SA Water Supply. Refer to data in Country Supply Table 4. Davenport supplied from Morgan WTP, Point Pearce supplied from Morgan / Swan Reach WTP, and Raukkan supplied from Taillem Bend WTP.

⁺⁺ Due to COVID-19 travel restrictions to remote Aboriginal communities, the fourth quarter sampling run to the APY Lands was cancelled.

Table 6 — continued

System	Manganese – Total [mg/L]					Hardness – Total [mg/L]			
	Min	Max	Ave*	Health Compliance % [#]	Aesthetic Compliance %	Min	Max	Ave*	Aesthetic Compliance %
ADWG Value				≤ 0.5	≤ 0.1				≤ 200
Target				99.8%					
Amata ⁺⁺	0.0005	0.0005	0.0005	100	100	405	405	405	0.0
Davenport [^]	-	-	-	-	-	-	-	-	-
Gerard	0.0042	0.0042	0.0042	100	100	29	29	29	100
Indulkana ⁺⁺	0.0015	0.0015	0.0015	100	100	90	90	90	100
Kalka ⁺⁺	<0.0001	<0.0001	<0.0001	100	100	327	327	327	0.0
Kaltjiti ⁺⁺	-	-	-	-	-	-	-	-	-
Kanpi ⁺⁺	0.0002	0.0002	0.0002	100	100	516	516	516	0.0
Mimili ⁺⁺	0.0001	0.0001	0.0001	100	100	142	142	142	100
Murputja ⁺⁺	0.0034	0.0034	0.0034	100	100	102	102	102	100
Nepabunna	0.0034	0.0034	0.0034	100	100	19	19	19	100
Nyapari ⁺⁺	0.0037	0.0037	0.0037	100	100	95	95	95	100
Oak Valley	<0.0001	<0.0001	<0.0001	100	100	7	7	7	100
Pipalyatjara ⁺⁺	<0.0001	<0.0001	<0.0001	100	100	466	466	466	0.0
Pt Pearce [^]	-	-	-	-	-	-	-	-	-
Pukatja ⁺⁺	0.0002	0.0002	0.0002	100	100	237	237	237	0.0
Raukkan [^]	-	-	-	-	-	-	-	-	-
Umuwa ⁺⁺	0.0004	0.0004	0.0004	100	100	236	236	236	0.0
Watinuma ⁺⁺	<0.0001	<0.0001	<0.0001	100	100	403	403	403	0.0
Yalata	<0.0001	<0.0001	<0.0001	100	100	87	87	87	100
Yunyarinyi ⁺⁺	0.0001	0.0001	0.0001	100	100	67	67	67	100

* Limit of reporting (LOR) values replaced with half LOR prior to calculating average.

[#] Prior to calculating compliance for health related chemicals, individual water sample test results are rounded to the same number of significant figures as the ADWG value (as prescribed in the ADWG and endorsed by SA Health).

[^] System supplied from another SA Water Supply. Data available in Country Supply Table 4. Davenport supplied from Morgan WTP, Point Pearce supplied from Morgan / Swan Reach WTP, and Raukkan supplied from Tailem Bend WTP.

⁺⁺ Due to COVID-19 travel restrictions to remote Aboriginal communities, the fourth quarter sampling run to the APY Lands was cancelled.

United Nations Communication on Progress

As a participant of the United Nations Global Compact, we are part of the world's largest corporate sustainability initiative which exists to implement universal sustainability principles and support progress towards achieving the Sustainable Development Goals.

A principle-based approach

Ensuring our customers receive reliable, quality services, and trust us, is why we are transparent in what we do and how we do it.

To achieve this, we comply with many acts, laws, regulations, codes of practice, policies and procedures, as well as set ourselves measurable goals which go beyond compliance and reach into working to improve outcomes for communities.

Our Corporate Compliance Framework ensures an integrated, strategic and consistent approach to managing our responsibilities, and provides processes for identifying, assessing, prioritising, reporting, and monitoring our performance on a regular basis so that what we do is safe, consistent, reliable, and in the best interest of our customers and our people.

iComply is our compliance system, providing a central repository for managing our obligations and licenses, raising non-compliances and all associated reporting.

COMMUNICATION ON PROGRESS



This is our **Communication on Progress** in implementing the Ten Principles of the **United Nations Global Compact** and supporting broader UN goals.

We welcome feedback on its contents.

In addition to our external responsibilities, we have five business-wide policies which reinforce our commitment to operating sustainably to maintain our viability now and into the future:

1. Customer and Community
2. Environment
3. Finance
4. Governance
5. People, Safety and Capability.

Our policies, legislative requirements and strategy guide our procedures, priorities and actions. Through our policies and compliance actions, our business and operations are aligned with the Ten Principles of the UN Global Compact to achieve the Sustainable Development Goals.

Human Rights

Principle 1: Business should support and respect the protection of internationally proclaimed human rights.

Principle 2: Make sure they are not complicit in human rights abuses.

Acts and regulations

As a South Australian owned statutory corporation, we operate under Australian and South Australian laws, including, yet not limited to:

- *Age Discrimination Act 2004*
- *Disability Discrimination Act 1992*
- *Racial Discrimination Act 1975*
- *Sex Discrimination Act 1984.*

Policy

Developing business-specific policies around human rights has been identified as an opportunity for improvement. Our Finance Policy states that “when making decisions about purchasing goods, services or works, we consider customer, community and environmental consequences as well as the financial benefits”.

Plans and procedures

Our Leave Procedure has provisions for people to access personal leave and enables people experiencing family and domestic violence additional provision. It also has provisions for gender affirmation leave to support our people who are undertaking gender transition or defining their gender identity.

Our Supply Chain team is implementing plans aimed at addressing a range of social impacts through the supply chain, including the State Government's Local Participation Policy, our Reconciliation Action Plan and Modern Slavery Action Plan. Our procurement procedures have been enhanced to include the need to identify and address any social impacts including human rights as part of our approaches to the supply market and with our contracted partners and their associated supply chains.

Actions

Through an industry-leading initiative, accessible services for a wider world, we are changing the way we work to deliver better water services for our customers living with a disability or debilitating lifestyle condition. This program aims to make sure anyone living with a disability or accessibility issue is able to best engage with our services, and that we are meeting their needs.

We seek to work collaboratively with our suppliers and the supply chain to identify risk and implement controls to support minimising human rights risks throughout the supply chain. This includes:

- developing focused local participation plans and key social performance metrics with our strategic partners
- seeking to form and build relationships with Aboriginal owned businesses and helping develop their commercial acumen
- identifying high risk human rights supply chains, working with our suppliers and the supply chain within these high-risk areas and training and developing our people to improve social outcomes through our supply chain investment.

Labour

Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining.

Principle 4: The elimination of all forms of forced and compulsory labour.

Principle 5: The effective abolition of child labour.

Principle 6: The elimination of discrimination in respect of employment and occupation.

Acts and regulations

As a responsible statutory corporation, we actively comply with anti-discrimination, equal opportunity responsibilities and labour laws including:

- *Equal opportunity Act 1984*
- *Work Health and Safety Act 2012*
- *Return to Work Act 2014*
- *Long Service Leave Act 1987.*

Our Enterprise Agreement enables collective bargaining in accordance with the Australian *Fair Work Act 2009*. This requires the support from the majority of our people covered by the agreement, and who can vote on it, before it is then approved by the Fair Work Commission. It must provide better terms and conditions of employment for our people than if they were employed under the relevant modern award.

Policy

Our People, Safety and Capability Policy provides our people clear boundaries and guiding principles on our approach to managing our greatest asset — people. It states that discrimination is not tolerated.

In addition, through our Finance Policy we encourage equal opportunity to all potential suppliers. The policy states that: “Potential suppliers are given equal opportunity to do business with us. To support the South Australian Industry Participation Policy and Aboriginal Business Procurement Policy, local and Aboriginal suppliers will be given opportunities to satisfy our requirements, including competitiveness and capability.”

Plans and procedures

Our Enterprise Agreement incorporates our commitment to providing appropriate support, training and development to promote diversity in the workplace. This is supported by a number of plans including our Diversity and Inclusion Plan and our Reconciliation Action Plan. This plan includes Aboriginal and Torres Strait Islander employment and retention targets.

Our Diversity and Inclusion Plan has four priority areas of focus:

1. women at SA Water
2. Aboriginal and Torres Strait Islander employment and retention
3. flexible and inclusive workforce
4. emerging workforce.

Our Leave Procedure has provisions for trade union training leave which acknowledges the right of our people to choose to be members of a trade union or employee association and supports their development in promoting effective industrial relations in the workplace. We also provide training for our people to develop and participate in our business as work health and safety representatives.

In addition, this procedure also has provisions for cultural/ceremonial leave for our Aboriginal and Torres Strait Islander people enabling them to fulfil cultural requirements and responsibilities that are a recognised and important part of their culture.

Actions

Each of the four focus areas in our Diversity and Inclusion Plan comprises multiple actions and programs so we achieve in each area.

To support diversity across the corporation, we measure the number of women in leadership positions monthly, which forms one of our key strategic metrics. Initiatives include partnering with the University of Adelaide to support their Women in Science, Technology, Engineering and Mathematics Careers program.

As a member of Pride in Water, we support this Australian water industry initiative to include our people who identify as LGBTIQ+, as well as our customers. To support our people, we have two internal network groups: Together for Women and Pride Together.

We also provide meaningful employment opportunities for young people through our traineeships, apprenticeships and graduate placements.

To implement sustainable procurement practices in our business, we are investigating our supply chains to ensure we are not involuntarily complicitous in forced, compulsory or child labour through any international procurement of goods and services.

Environment

Principle 7: Businesses should support a precautionary approach to environmental challenges.

Principle 8: Undertake initiatives to promote greater environmental responsibility.

Principle 9: Encourage the development and diffusion of environmentally friendly technologies.

Acts and regulations

Our register of Environmental Legal Requirements captures all the legislation we must comply with. This includes, yet is not limited to:

- *Environment Protection Act 1993*
- *Planning Development and Infrastructure Act 2016*
- *Aboriginal Heritage Act 1988*
- *Landscape South Australia Act 2019*

Under the *Environment Protection Act 1993*, the operation of our licenced facilities are regulated by the South Australian Environment Protection Authority.

Policy

Our business-wide Environment Policy gives our people clear boundaries and guiding principles on how we provide environmental outcomes our customers value as we provide high quality drinking water and recycled water, as well as the effective collection, treatment and disposal of wastewater.

Plans and procedures

To fulfil our environmental commitments, we established and maintain a corporate Environmental Management System which is certified to the Australian and international standard [AS/NZS ISO14001:2015](#).

Our corporate Environmental Management Plan outlines overarching environmental performance improvement objectives and targets. Its actions align to our operational and asset management plans.

To manage our environmental risks and ensure specified standards are met, our Environmental Management System has processes and procedures that determine how a specific process or activity must be performed.

Environmental incidents, hazards and risks are captured in our Safe, Actions, Assured, Managed system and managed in accordance with the policy and procedures.

Actions

Environment and heritage assessments make sure potential impacts to the environment or heritage are identified and managed throughout planning, constructing and operating our assets.

Anti-corruption

Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery.

Acts and regulations

All of our people are 'public officers' and so bound by the provisions of the:

- *Independent Commissioner Against Corruption Act 2012*
- Independent Commissioner Against Corruption Directions and Guidelines for Public Officers
- *Public Interest Disclosure Act 2018*
- Public Interest Disclosure Regulations 2019
- *Public Sector (Honesty and Accountability) Act 1995*
- Public Sector (Honesty and Accountability) Regulations 2010.

Policy

As public officers our people must comply with the [South Australian Public Sector Fraud and Corruption Control Policy](#) and the [Code of Ethics for the South Australian Public Sector](#).

Our business-wide Governance Policy provides clear boundaries and guiding principles for good governance. It states that "we have a culture where ethical behaviour is paramount, and fraud and corruption is not tolerated".

Plans and procedures

Our Fraud and Corruption Control Plan establishes a uniform approach to managing risks associated with fraud and/or corruption. Fraud and corruption control is a responsibility shared by all our people and our contractors. The plan is supported by a Fraud and Corruption Control Procedure.

Our Ethical Standards Procedure ensures respect, safety, integrity and lawfulness in our dealings with the public and each other, and that our people do not engage in fraudulent, corrupt or illegal activity.

Our Procurement and Contract Management Procedure provides the steps and guidance to our people on our procurement processes, authorities and accountabilities to ensure probity is applied and conflicts of interest are managed.

Actions

Our performance is monitored regularly, and this information is provided to our Senior Leadership Team, Board Committees and external regulators.

Compliance programs are managed by specialist areas in our business where a specific area of operation has significant responsibility requirements.

Prioritising goals

The Sustainable Development Goals (SDGs) are inherently interdependent. Our materiality assessment highlights the areas in which we can make the biggest impact and we recognise our actions have secondary impacts where we can make a difference.

Our material impacts are grouped in four narratives.

1.		In delivering our core water and sanitation services, we are the interface between our customers and the natural environment. Our production and treatment activities ensure the water is fit for our customers to use and to be recycled or returned to the environment.				
2.		In serving the whole community, we care for our people, customers and members of the community. We are committed to building enduring and respectful relationships with the Aboriginal and Torres Strait Islander community.				
3.		We are part of the fabric of our towns, cities and regional centres, contributing to sustainable and liveable communities. We build and operate significant assets to provide water and sanitation services.				
4.		Climate change affects all aspects of our business including water security. Distribution of a reliable drinking water supply and provision of our services requires significant amounts of energy.				
The SDGs are all interconnected and we acknowledge our impact on these additional goals.						

How we contribute to the SDGs

Primary focus: Goal 6 – Clean Water and Sanitation



How we contribute to this goal

Our core business is to provide safe, clean water and sanitation services to meet the public health needs of communities across South Australia.

Taking raw water from a range of sources, we treat it to meet stringent quality criteria.

At the other end, we remove the wastewater and treat it to be suitable for reuse or for release back into the environment.

Goal 6 targets we contribute to	Our target	Our progress as of 30 June 2020	Read more
6.1 By 2030, achieve universal and equitable access to safe and affordable drinking water for all.	Delivering water services across the state.	More than 230 billion litres of water supplied to more than 700,000 homes and businesses.	Our services, page 12.
		In 2019-20 we took on responsibility for the operation and maintenance of the drinking water supply network servicing the town of Wirrina.	Yankalilla wastewater and Wirrina water networks transferred, page 25.
	Delivering a reduced average bill price.	In 2020-21, the average residential customer in metropolitan Adelaide will benefit from an estimated annual saving of \$200 or 15.9 per cent on their combined water and sewerage bills, with average residential customers in regional areas estimated to save around \$185.	Lower prices for customers, page 22.
	Providing services to remote communities.	An estimated 2,650 customers living in remote Aboriginal communities, including the Anangu Pitjantjatjara Yankunytjatjara (APY) Lands, receive our services.	
		Murputja, Kanpi, Nyapari, in APY Lands, began to receive safe, clean drinking water treated through the Murputja Desalination Plant.	Kanpi connects to remote desalination plant, page 24.
Supporting customers experiencing hardship.		Our Customer Assist Program was delivered to support customers finding it difficult to pay their bills, including free, confidential and independent financial counselling, support and assistance.	
		Access to safe drinking water was maintained during significant bushfire events.	Bushfire impacts and recovery, page 18.

Goal 6 targets we contribute to	Our target	Our progress as of 30 June 2020	Read more
6.2 By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations.	Delivering wastewater services across the state.	Safe wastewater services were provided to more than 537,000 homes and businesses in metropolitan Adelaide and larger regional towns.	Our services, page 12.
6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimising release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally.	Reducing wastewater overflows into the environment.	<p>In 2019-20 we had 142 environmental wastewater overflows. This performance is also measured over a five-year rolling average to account for wet and dry conditions. Our five-year rolling average was 116 overflows. Both results are above our target of 91.</p> <p>When there were toilet paper shortages in the community prompted by the COVID-19 pandemic, our healthy sewers messaging helped our customers make informed decisions about what not to flush in order to minimise wastewater overflows into the environment caused by blocked sewers. Facebook content about healthy sewers reached more than 403,000 people.</p>	Healthy sewers, page 20.
6.4 By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity.	Reducing our reliance on freshwater by increasing the amount of recycled water.	<p>With 413 kilometres of pipe networks and 6,949 connections, we have the longest recycled water mains network in Australia.</p> <p>At 33.1 per cent, we are the second highest recycler of wastewater among large utilities in Australia.</p> <p>Recycled water used to water recreational facilities including:</p> <ul style="list-style-type: none"> • Bennett Oval • Amata Oval. <p>The cooling effects of watering open space was mapped to help us work with local councils to implement smart irrigation, enabling efficient maintenance of healthy lawns and vegetation at parks and playgrounds.</p>	<p>Our services, page 12.</p> <p>Recycled water keeps Whyalla's oval green, page 36.</p> <p>Outback footy oval powered up, page 39.</p> <p>Mapping cool, green parks, page 46.</p>

Secondary contribution: Goal 3 – Good Health and Wellbeing



How we contribute to this goal

The provision of safe water and sanitation services protects our customers and communities from waterborne diseases and death from contaminated water.

By providing accessible drinking water fountains and encouraging our communities to use them, we are working to reduce negative health impacts associated with consuming sugary drinks.

Goal 3 targets we contribute to	Our target	Our progress as of 30 June 2020	Read more
3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.	Complying with the Australian Drinking Water Guidelines.	We had 99.93 per cent health compliance with the Australian Drinking Water Guidelines in 2019-20, against our target of 99.9 per cent.	Water quality, page 50.

Secondary contribution: Goal 14 – Life Below Water



How we contribute to this goal

Our wastewater is treated so it can be released back to the environment. With 33.1 per cent reused as recycled water, we are reducing discharges to water courses and the sea.

Coastal desalination plants supplement our water supply and we manage our operations so waste streams do not have negative impacts on coastal waters.

Goal 14 targets we contribute to	Our target	Our progress as of 30 June 2020	Read more
14.1 By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution.	Reducing the load on receiving waters by recycling water for reuse.	We recycled 33.1 per cent of water from our wastewater treatment plant effluent. This is above our target of 28 per cent.	
	Complying with our environmental protection responsibilities.	We had 98.1 per cent compliance with our legislative and regulated environmental protection responsibilities against a target of 98 per cent.	Protecting the environment, page 26.
	Supporting our community to care for life below water.	Through our Community Partnerships Program, we supported Our Coast Our Mission to clean up South Australian beaches, rivers and waterways.	Partnerships bring community benefits page 32.

Secondary contribution: Goal 15 – Life on Land



How we contribute to this goal

Our barrier approach to managing drinking water quality ensures we take care of our catchments and reservoirs.

As a significant landholder in South Australia with approximately 80,000 hectares, we have a duty of care to manage land and biodiversity.

Goal 15 targets we contribute to	Our target	Our progress as of 30 June 2020	Read more
15.1 By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements.	Maintain and enhance the ecological integrity of our land and maximise areas of native vegetation.	Restoration of terrestrial ecosystems followed the Cudlee Creek bushfire by helping the community to prevent soil erosion and loss of seeds and removal of feral goats and sheep.	Bushfire impacts and recovery, page 18.
		Major infrastructure was delivered to enable managed inundation events on the 9,000 hectare Katarapko floodplain and support restoration of habitats for biodiversity.	Results in Katarapko, page 37.
		Rehabilitation of the Mobilong and Toora River irrigation flats was completed to maintain the health of the environment and manage acid sulphate soil.	
		Biodiversity was developed through grassy woodland restoration at Millbrook.	Grassy woodland restoration at Millbrook, page 43.
15.3 By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world.	Revegetation of degraded land with natural plant species.	Revegetation of our Kadina Depot used more than 300 locally-sourced native plants.	Kadina plantings grow local gardening inspiration, page 36.
15.5 Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species.	No livestock grazing on our land abutting dams, weirs, and natural aqueducts.	There is no grazing on any of reservoir reserve sites (or groundwater basins) upstream of dam walls.	
	Active programs in place to control all pest species prescribed in legislation.	Pest animal control programs are implemented and recorded across all our major landholdings for key species such as goats, deer, rabbits, pigs and foxes.	
	Protect biodiversity through prescribed burning of catchments.	In 2019-20, we completed four prescribed burns totalling 105 hectares. Since 2009, 3,000 hectares of our land has been burnt through prescribed burning activities.	
15.8 By 2020, introduce measures to prevent the introduction and significantly reduce the impact of invasive alien species on land and water ecosystems and control or eradicate the priority species.	Revegetation of degraded land with natural plant species to control weeds.	Revegetation work at Little Para Reservoir Reserve included planting more than 3,300 native trees.	Little Para natives a budding success, page 35.

Primary focus: Goal 10 – Reduced Inequalities



How we contribute to this goal

Our people

By fostering an inclusive culture, diversity of thought, background and experience are embraced and celebrated within our business and our communities.

Guided by our Diversity and Inclusion Plan, we are making changes to how we work so everyone feels comfortable to be who they are at work.

Our priorities are focused on the four pillars that underpin our Diversity and Inclusion Plan. These are:

1. women at SA Water
2. Aboriginal and Torres Strait Islander employment and retention
3. flexible and inclusive workforce
4. emerging workforce.

Our community

Working on Aboriginal lands – including culturally sensitive and significant sites across South Australia – we have relationships with many communities that help guide us in how we operate on these lands and waters.

We are committed to building enduring and respectful relationships with Aboriginal and Torres Strait Islander communities.

In supporting Reconciliation Australia's aim of closing the life expectancy gap that exists between Aboriginal and Torres Strait Islander people and other Australians, we continue to contribute by delivering our Reconciliation Action Plan.

Goal 10 targets we contribute to	Our target	Our progress as at 30 June 2020	Read more
10.2 By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status.	Increase the number of Aboriginal and Torres Strait Islander employees.	2.6 per cent of our people are Aboriginal and/or Torres Strait Islander people.	Diversity and inclusion, page 47.
		47 per cent of our apprentice intake were women and/or Aboriginal people.	
	Support people living with a disability.	Our Community Partnerships Program supports initiatives which promote social inclusion for people living with a disability. This year we supported accessibility at the Lucindale Pool, a sensory garden in Mount Gambier and an aquatic therapy program run by Autism SA.	Partnerships bring community benefits, page 32.

Secondary contribution: Goal 2 – Zero Hunger



How we contribute to this goal

Water is essential for food production and we work to provide fit for purpose water solutions to meet this need. Our services support home gardeners and commercial horticulture alike.

Goal 2 targets we contribute to	Our target	Our progress as at 30 June 2020	Read more
2.1 By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round.	Provide water solutions that support food production.	Through our Community Partnerships Program, we supported the installation of water efficient wicking garden beds to grow fresh produce for people in need living in Port Lincoln.	Partnerships bring community benefits, page 32.

Secondary contribution: Goal 4 – Quality Education



How we contribute to this goal

Our school and community programs feature activities promoting the importance of water as a resource, the water cycle, ways to overcome scarcity and how we can all contribute to sustainability.

Goal 4 targets we contribute to	Our target	Our progress as at 30 June 2020	Read more
4.4 By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship.	Providing learning opportunities for our communities to support decent work.	Working with members of the Anangu community, we continued to deliver a plumbing course that empowers community members to fix water leaks. Two courses were offered in 2019-20 and there have been 85 attendees to date.	Skills shared build capability, page 39.
	Learning opportunities for Aboriginal and Torres Strait Islander people through scholarships, apprenticeships, traineeships and leadership courses.	In 2019-20, three Aboriginal members of our workforce completed the Sisterhood Foundation Leadership and Personal Development Program run by the Gladys Elphick Awards.	
4.7 By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development.	Providing learning opportunities for our communities to support sustainable development.	12,286 students and their teachers participated in our Brainwave education program.	Community programs and events, page 35.
		1,671 people toured the Adelaide Desalination Plant and Kauwi Interpretive Centre, including 14 Cree Indigenous visitors from Canada.	
		447 people attended community presentations about water services and toured our treatment plants.	
		Through our Community Partnerships Program, we supported the creation of a water wise garden at the Murraylands Migrant Resource Centre to share knowledge about what grows well in our local environment.	Partnerships bring community benefits, page 32.

Secondary contribution: Goal 5 – Gender Equality



How we contribute to this goal

Our commitment is to increase opportunities for women in leadership and non-traditional roles including science, technology, engineering, mathematics (STEM) and trades.

Goal 5 targets we contribute to	Our target	Our progress as at 30 June 2020	Read more
5.5 Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life.	Increase the number of women in leadership positions.	38.9 per cent of leadership positions are held by women.	Diversity and inclusion, page 47.
	Increase opportunities for women in STEM.	More than 50 per cent of our STEM undergraduates are female, as are 47 per cent of our graduates.	Strengthening support for women in STEM, page 30.
		We provided 100 young women in STEM fields with career development support through our partnership with the University of Adelaide.	Strengthening support for women in STEM, page 30.

Secondary contribution: Goal 8 – Decent Work and Economic Growth



How we contribute to this goal

Our people

Our Enterprise Agreement provides simple, clear and unambiguous conditions of employment which are underpinned by National Employment Standards.

Actions in this area demonstrate our commitment to growing and retaining our Aboriginal and Torres Strait Islander workforce through ongoing career support and development.

Apprenticeships, traineeships and graduate placements are provided, particularly for young people, including targeting Aboriginal and Torres Strait Islander people.

Our community

Our focus is on empowering Aboriginal and Torres Strait Islander businesses to participate in opportunities through commercially competitive arrangements and ventures.

Goal 8 targets we contribute to	Our target	Our progress as at 30 June 2020	Read more
8.3 Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalisation and growth of micro-, small- and medium-sized enterprises, including through access to financial services.	Increasing Aboriginal and Torres Strait Islander supplier diversity.	We spent more than \$3.2 million with Aboriginal businesses, comprising a direct spend in excess of \$500,000 and indirect spending more than \$2.7 million.	A new Reconciliation Action Plan, page 38.
8.6 By 2020, substantially reduce the proportion of youth not in employment, education or training.	Provide a number of entry level positions for graduates, trainees, cadets and apprentices.	70 positions across the organisation are dedicated to these programs.	
	Provide work experience opportunities for Aboriginal and Torres Strait Islander people through our partnering with Tauondi Aboriginal College.	Three Tauondi College scholarship students completed work experience in 2019-20, with all three extended due to successful placements.	
	Increase the number of traineeships, apprenticeships and graduate placements for Aboriginal and Torres Strait Islander people.	There were five successful Aboriginal applicants for apprenticeships and traineeships in 2019-20.	
	Provide graduate roles.	Provided 18 graduate positions in our workforce with graduate retention at 96 per cent.	

Primary focus: Goal 11 – Sustainable Cities and Communities



How we contribute to this goal

By delivering and promoting activities related to water and sanitation services, we support the development of resilient and liveable communities.

Our Liveable Communities program is designed to create a better life for South Australians through innovative outdoor water use, leading to a greener city and state, reduced air temperature, improved health and wellbeing, and lower cost of living.

We also promote the use of reusable bottles with safe, clean tap water as an alternative to single-use plastic bottles including through our BYOB app that maps public drinking fountains across South Australia.

Goal 11 targets we contribute to	Our target	Our progress as at 30 June 2020	Read more
11.4 Strengthen efforts to protect and safeguard the world's cultural and natural heritage.	Partner with Aboriginal communities to record and share Aboriginal cultural heritage.	Through our Water Wisdom video series, we shared Aboriginal stories about traditional and contemporary water knowledge. Community art projects in Port Augusta and Kadina supported the sharing of culture in different and appropriate ways.	Sharing water wisdom, page 38. In this together, page 40.
11.7 By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities.	Research new ways to cool our communities and reduce the effect of urban heat islands through urban greening initiatives.	Smart irrigation is helping cool parks and air temperature, with sensors installed to measure results.	Mapping cool, green parks, page 46.

Secondary contribution: Goal 9 – Industry, Innovation and Infrastructure



How we contribute to this goal

As an asset-intensive business, the infrastructure we build and operate is designed with consideration to the full life cycle to ensure resilient provision of water and wastewater services into the future.

Goal 9 targets we contribute to	Our target	Our progress as at 30 June 2020	Read more
9.1 Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human wellbeing, with a focus on affordable and equitable access for all.	Invest in sustainable infrastructure.	The new Murray Bridge Wastewater Treatment Plant was acknowledged for its leading sustainable design.	New wastewater treatment plant sets Australian sustainability record, page 42.

Secondary contribution: Goal 12 – Responsible Consumption and Production



How we contribute to this goal

Operating 17 recycled water schemes and three stormwater harvesting schemes reduces our reliance on drinking water and discharges to the environment.

Goal 12 targets we contribute to	Our target	Our progress as at 30 June 2020	Read more
12.4 By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimise their adverse impacts on human health and the environment.	Maximise the beneficial reuse of biosolids and water treatment residuals generated from our treatment plants.	In 2019-20 we achieved 100 per cent reuse of all suitable biosolids generated from our wastewater treatment plants.	
12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse.	Encouraging our community to drink tap water and avoid single-use plastic bottles.	Our Quench Benches and drinking fountains provided more than 100,000 litres of drinking water to about 1.3 million people at more than 120 public events across the state.	Community programs and events, page 35.
		Installation of 18 new free drinking fountains in 2019-20, brought the total in operation across the state to 52.	Water flows at new community fountains, page 33.
		Our BYOB app was released. The app shows the location of more than 1,000 drinking fountains across South Australia.	BYOB app maps drinking fountains, page 35.
		Miss Isla attended community events serving water infusions and promoting a healthy lifestyle and better environmental outcomes through refilling re-usable bottles with safe, clean tap water.	Keeping event goers cool and refreshed, page 34.

Primary focus: Goal 13 – Climate Action



How we contribute to this goal

Delivering safe, clean water and sanitation services to our customers, generates greenhouse emissions through our pumping, treatment and business operations.

Emissions reductions and energy efficiencies are being developed through investment in research to minimise emissions from our wastewater treatment processes, and renewable energy generation.

Goal 13 targets we contribute to	Our target	Our progress as at 30 June 2020	Read more
13.2 Integrate climate change measures into national policies, strategies and planning.	Meet our greenhouse gas emissions reduction and renewable energy generation targets.	We continued to meet our long-term greenhouse gas reduction target of emissions no greater than 40 per cent of 1990 levels by 2050 and are reviewing our targets.	
		Our total greenhouse gas emissions for 2018-19 were 397,212 tonnes CO ₂ -e and the overall percentage of renewable electricity produced or purchased was approximately 28 per cent.	
		We have 2,285 hectares of reforestation for the purpose of carbon sequestration.	
	Adequately adapt to climate change.	The Adelaide Desalination Plant can meet 50 per cent of Adelaide's water demand, providing a climate-independent water source.	Supporting national drought relief, page 29.

Secondary contribution: Goal 7 – Affordable Clean Energy



How we contribute to this goal

As one of South Australia's largest electricity users, energy management is an important part of our business with 583 gigawatt hours of energy used in 2019-20.

Goal 7 targets we contribute to	Our target	Our progress as at 30 June 2020	Read more
7.2 By 2030, increase substantially the share of renewable energy in the global energy mix.	Invest in renewable technologies to reduce our greenhouse gas emissions.	Our Zero Cost Energy Future initiative has seen 150,000 solar panels installed across the state. The panels installed to date have the capacity to generate up to 57 megawatts and 95 gigawatt hours a year.	Building a zero cost energy future, page 41.
	Use biogas generated from the wastewater treatment process as a fuel source.	Additional biogas was generated at Glenelg Wastewater Treatment Plant. Our Port Lincoln Wastewater Treatment Plant upgrade continued with the installation of a new anaerobic digester. Biogas generated during the digestion process will then be extracted and burnt to provide a source of heat for the digester.	Biogas boost, page 21. Port Lincoln digester delivers, page 24.

Continual improvement plan

This is our second Communication on Progress. Following closely from our first, it is now incorporated into our annual reporting process.

We continue to work on the following opportunities for improvement:

- Clarity and greater transparency about how we are working to protect human rights.
- Develop stronger alignment of UN targets with our internal measures, overarching strategy, and corporate strategies.
- Increase business-wide understanding of the SDGs and communicate about them regularly.

