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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ISSN: 1833-9980

0052R12009
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

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.

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.

David Ryan
Chief Executive

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

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.

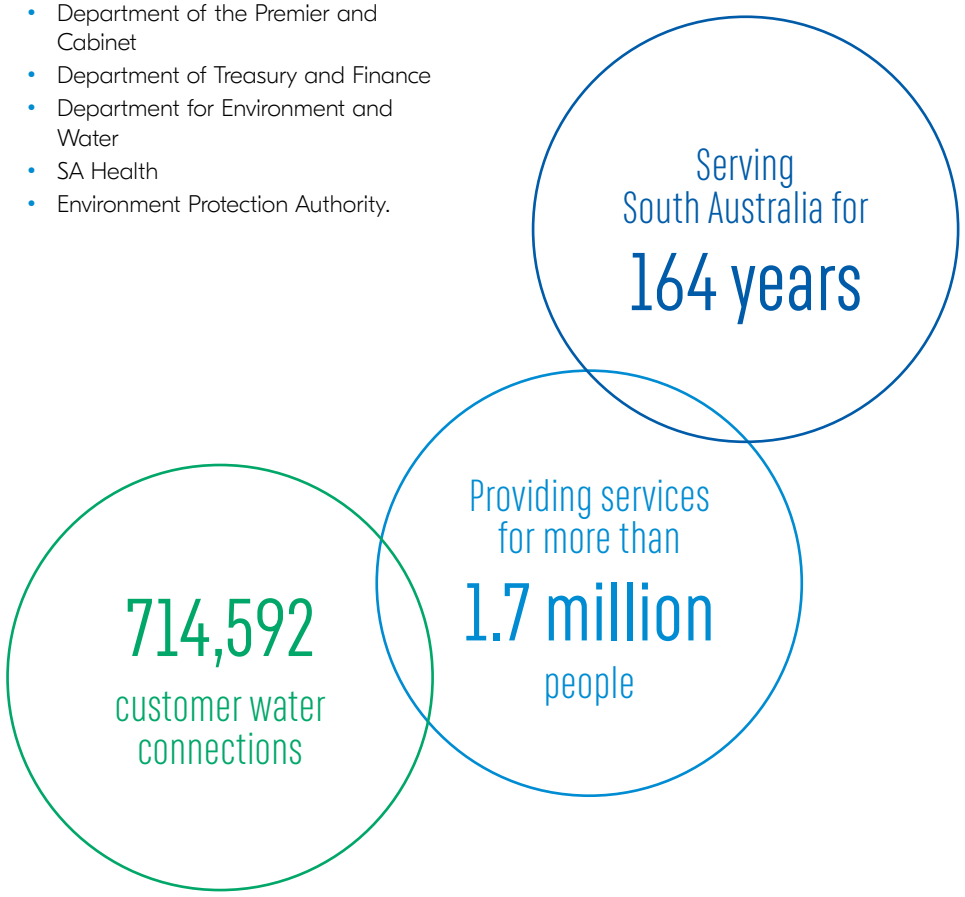
Our organisation

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.



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

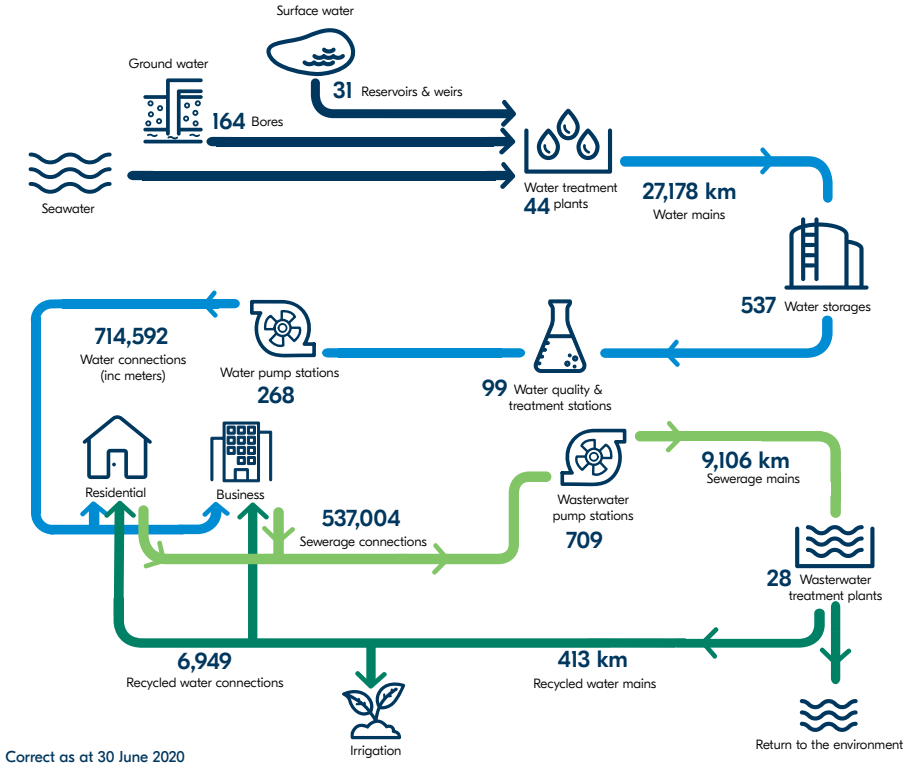
Each year we supply more than 230 billion litres of water to South Australians via our extensive and largely hidden pipes deep underground across our cities, suburbs and towns.

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.

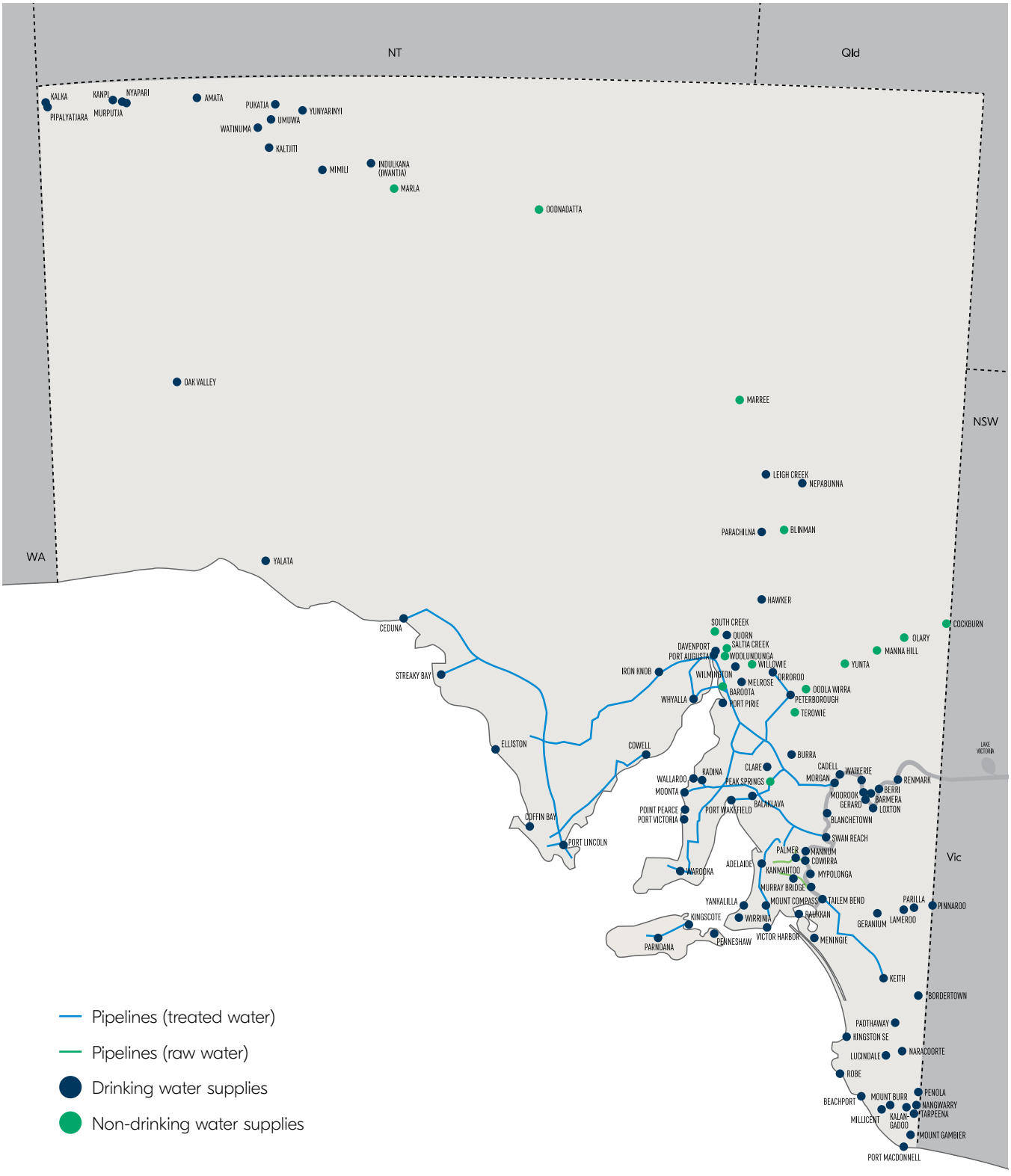
Of Australia's water utilities, we have one of the longest water mains supply network at more than 27,000 kilometres. In addition, we manage more than 9,000 kilometres of sewerage mains and a 413 kilometre-long recycled water network.

Overview of our network and assets

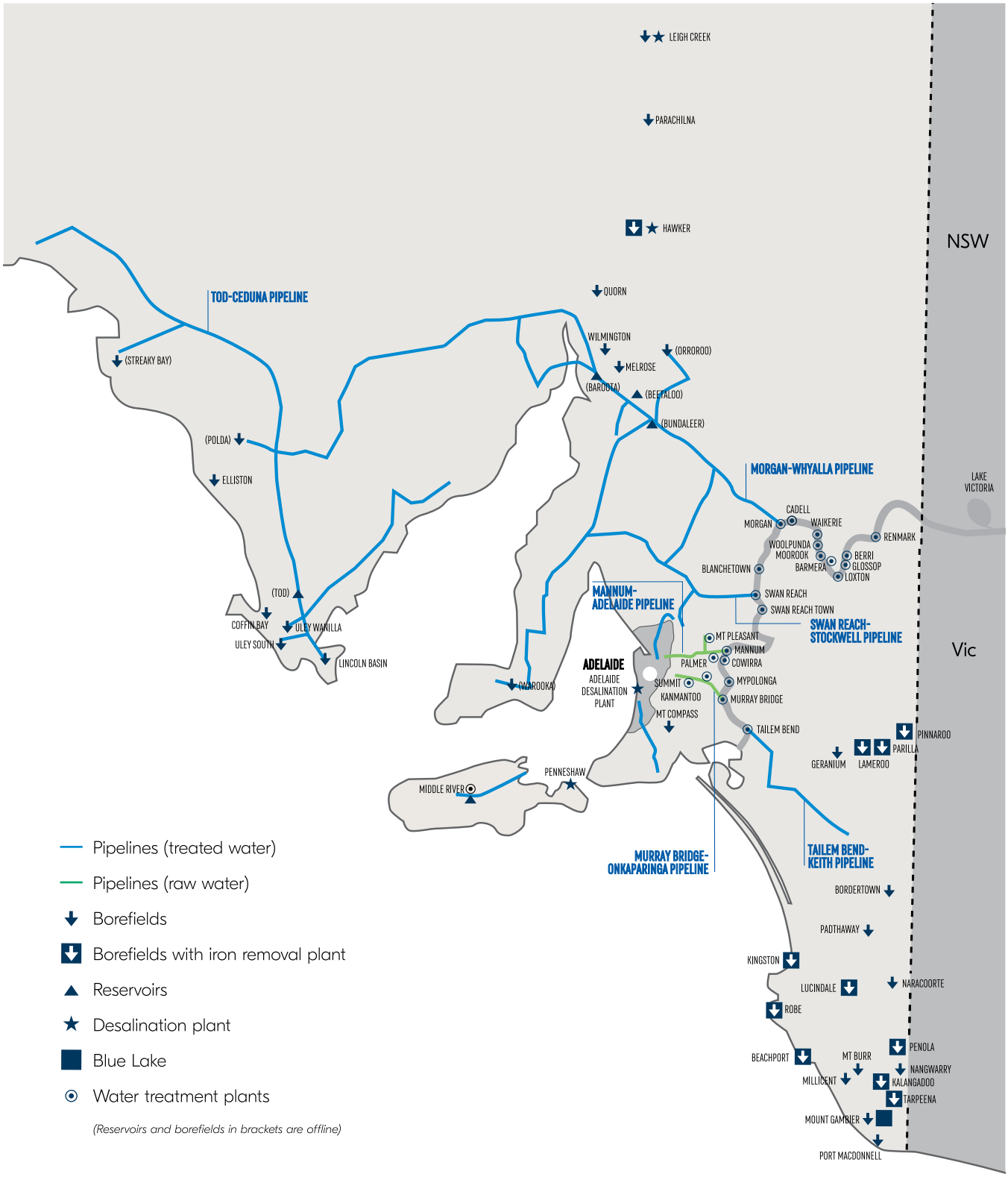


Correct as at 30 June 2020

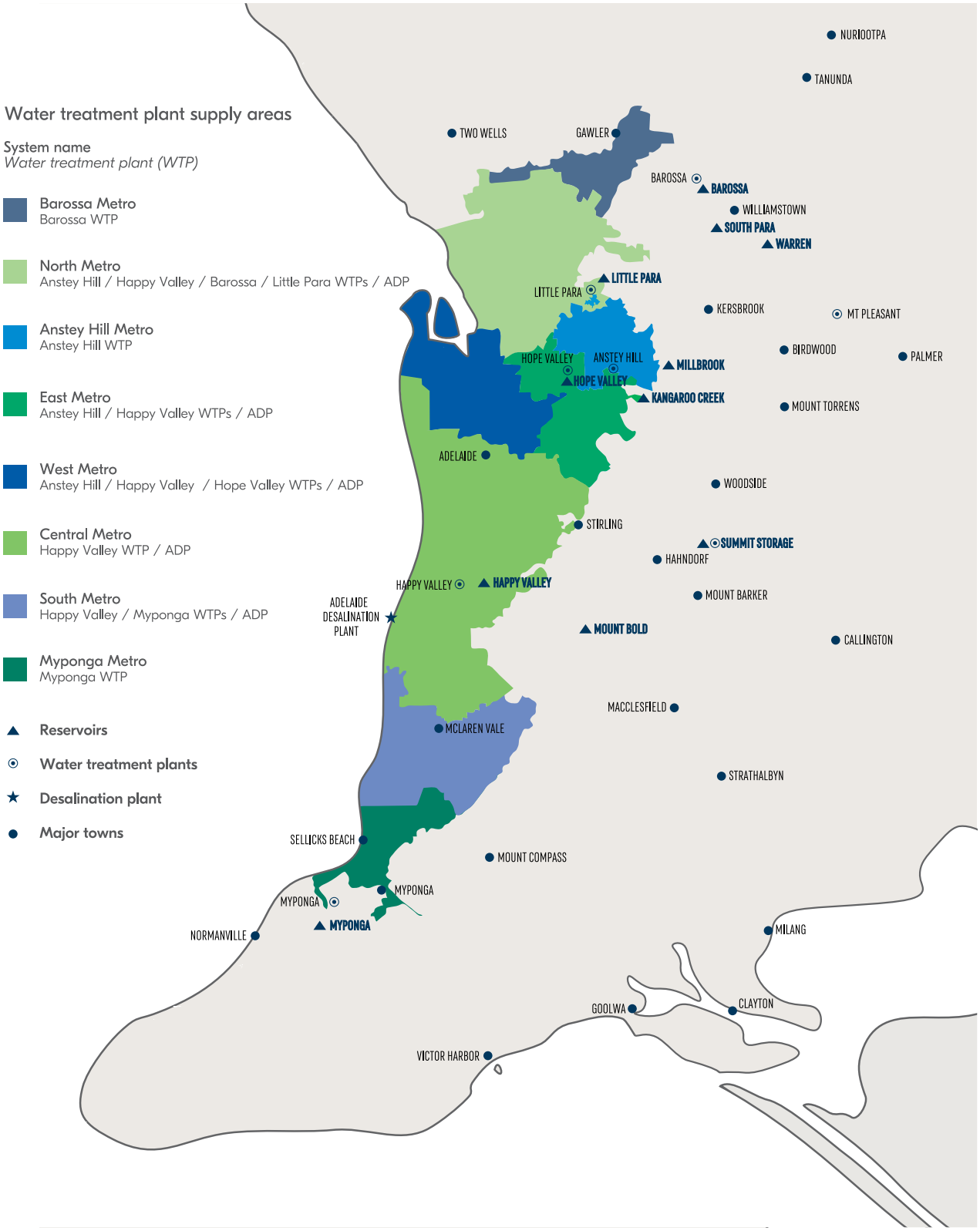
Map of our supply areas



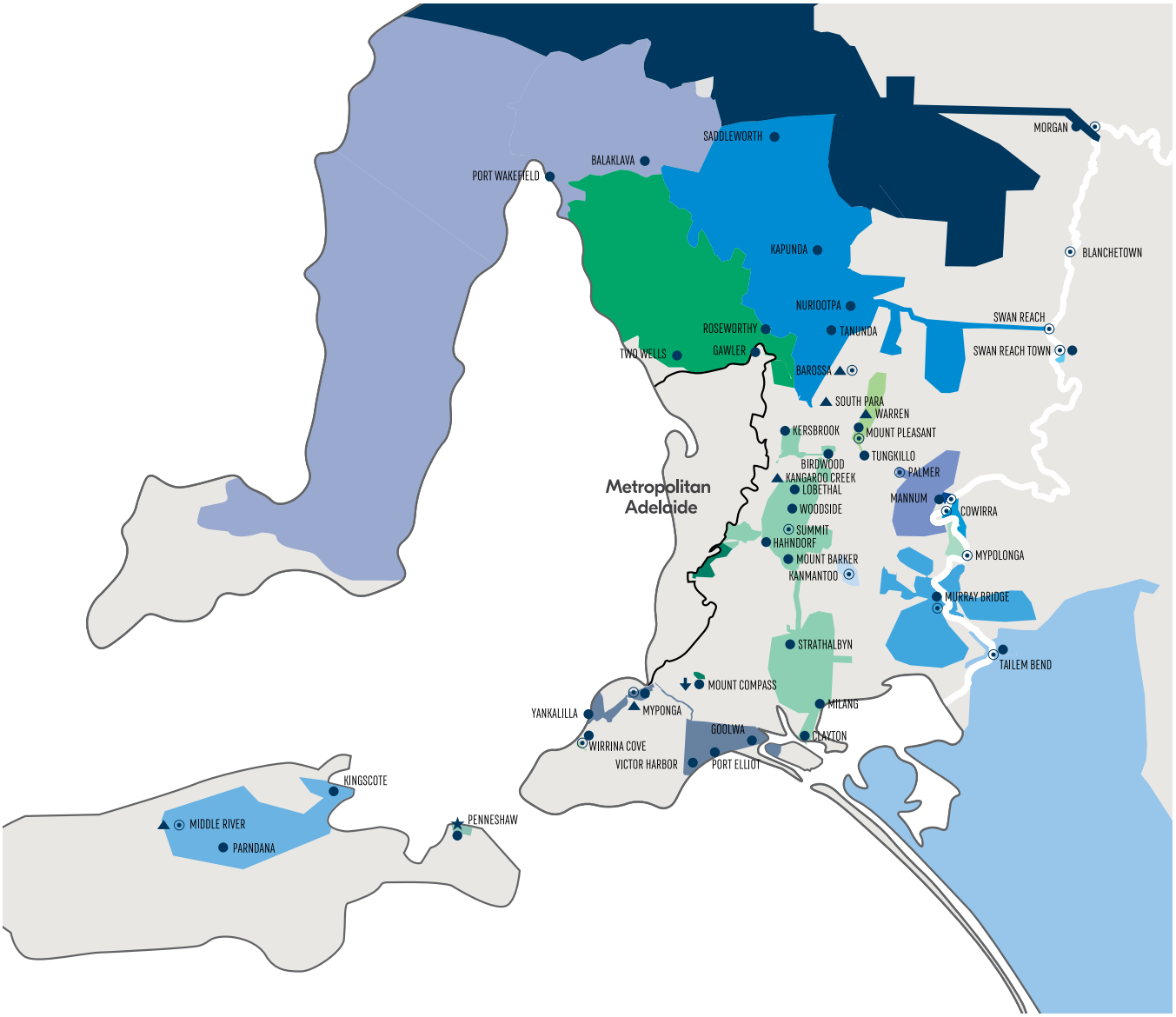
Map of our reservoirs, water treatment plants, borefields and major pipelines



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



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

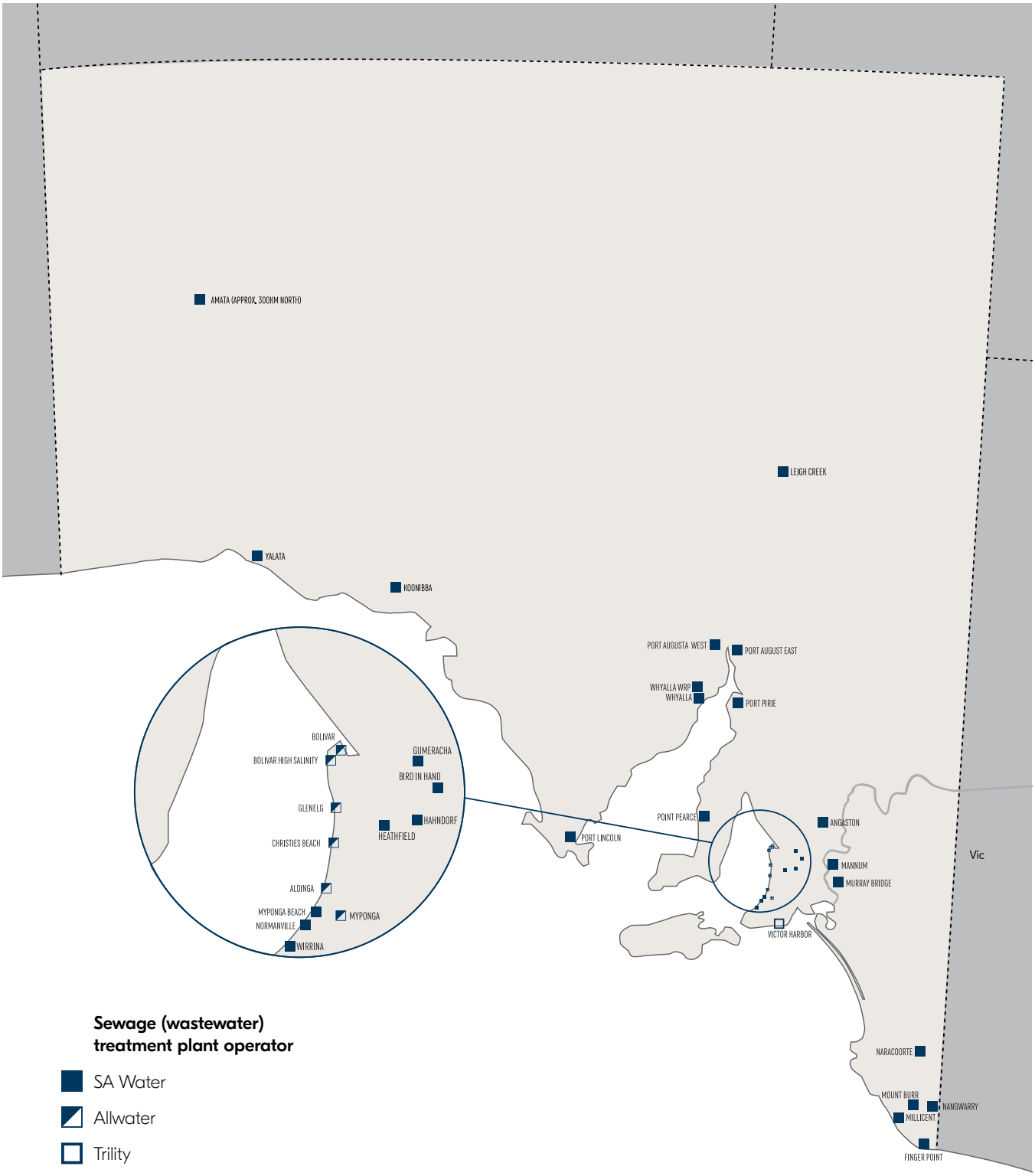


Water treatment plant (WTP) supply areas

- Morgan WTP
- Swan Reach WTP
- Mount Pleasant WTP
- Morgan-Swan Reach WTP
- Barossa WTP
- Happy Valley WTP
- Mannum WTP
- Cowirra WTP
- Swan Reach Town WTP
- Mypolonga WTP
- Murray Bridge WTP
- Palmer WTP
- Summit WTP
- Wirrina WTP
- Myponga WTP
- Kanmantoo WTP
- Mount Compass (bores)
- Tailem Bend WTP
- Middle River WTP
- Penneshaw WTP

- Borefields
- Reservoirs
- Water treatment plants
- Desalination plant
- Major towns
- Metro boundary

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 Aṉangu 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.

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

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.

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.

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.

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.

The Adelaide Desalination Plant produced 40 gigalitres of drinking water.

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.

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.

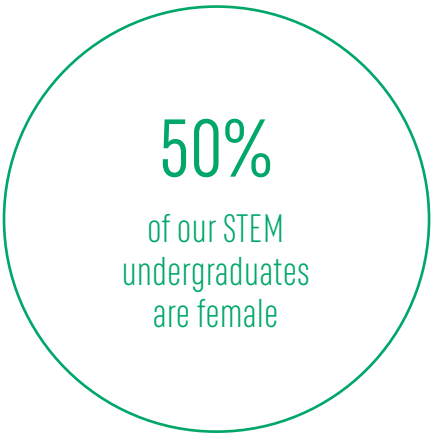
Strengthening support for women in STEM

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.



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.

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.

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 Tscharke 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.

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

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.

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 butterfish, 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 iTnews 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 Aṉangu 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.

Left: Customers continue to embrace digital services on offer.

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

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.

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.

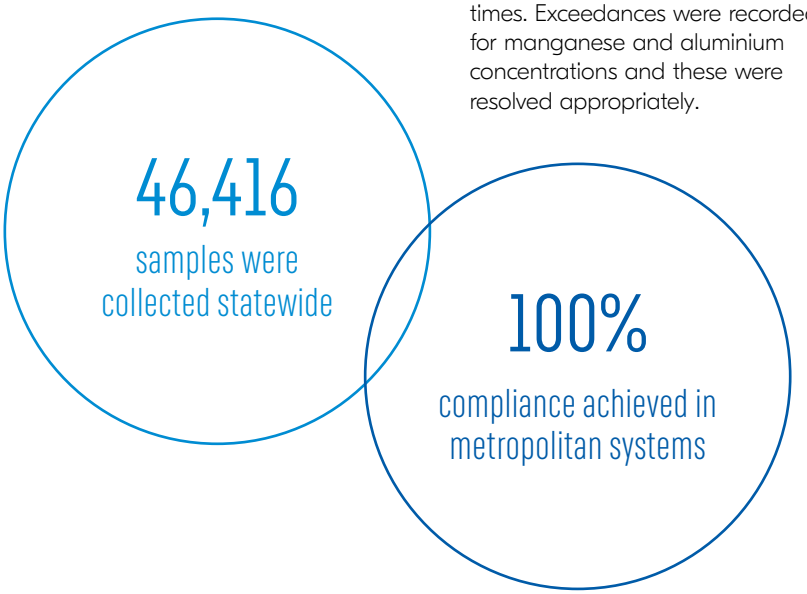
Water quality incidents were notified by SA Water in a timely manner. Appropriate remedial actions were implemented and ensured the protection of public health was maintained at all times. No incidents required public notification during the reporting period.

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.



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 *E. coli*	99.97% (10,307)	100% (3,221)	99.96% (6,995)	100% (91)
Samples compliant with ADWG health parameters*	99.93% (46,416)	100% (13,388)	99.91% (32,438)	99.32% (590)
	Target: 99.90%	Target: 100%	Target: 99.80%	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.

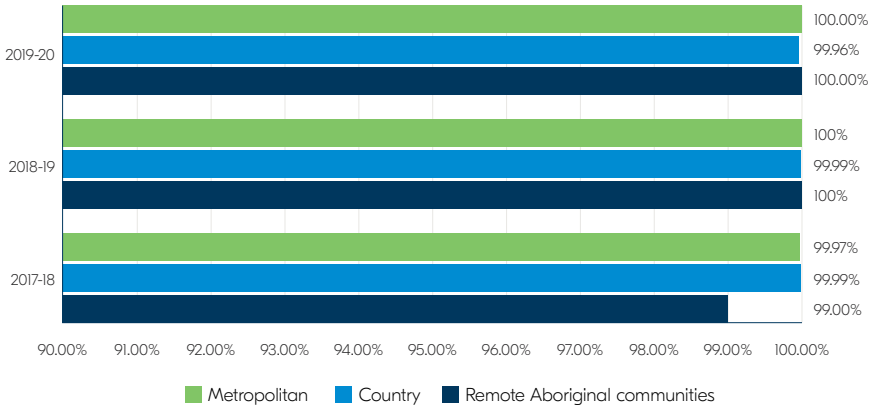
From 1 July 2019 we took on the responsibility of the Wirrina Cove water supply system from the District Council of Yankalilla. Since then we have installed a specialised aerator and are currently constructing a granular activated carbon plant, both of which will help remove disinfection by-products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

Criteria used in the Incident Response Index	Overall strategic target
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.


ESSENTIAL

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.

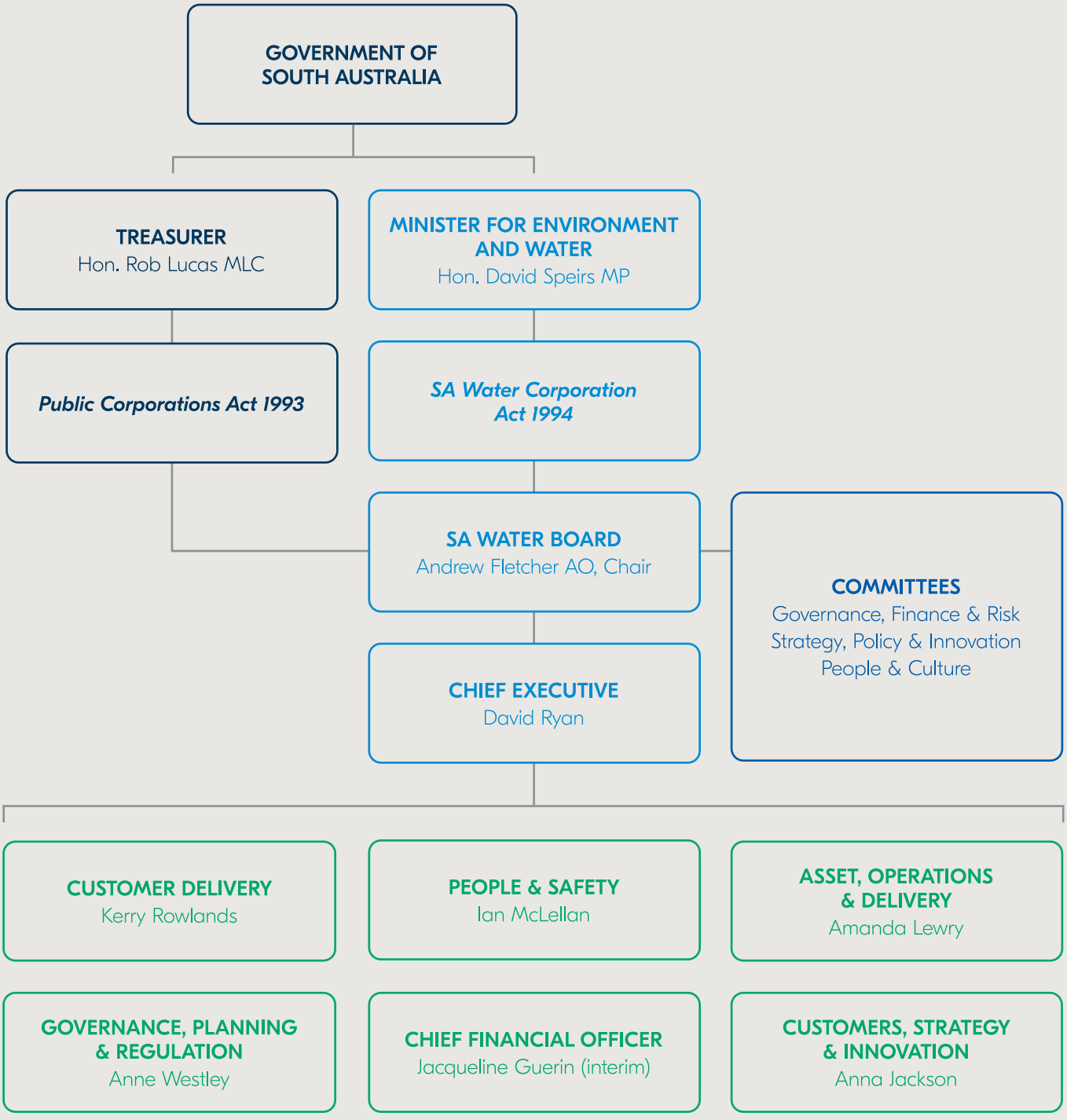
Governance, Finance and Risk Committee — supports the Board in fulfilling its governance and oversight responsibilities in relation to our financial planning and reporting, internal and external audit, internal control processes, risk management systems, compliance, and fraud control.

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




SA Water

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**
As a percentage of total operating expenses	*10.6%*
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 *Our Plan 2020-24*
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 gigalitres of water from the Adelaide Desalinisation 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 Spiers MP, Minister for Environment and Water

Parliament House CANBERRA ACT 2600
Telephone (02) 6277 7700
www.pm.gov.au

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.

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
25/05 / 2020


SA Water