SA Water

2020-21 South Australian Water Corporation **Annual Report**

FOR THE YEAR ENDING 30 JUNE 2021

Government of South Australia

SA Water

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Letter of Transmittal

30 September 2021

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 2021.

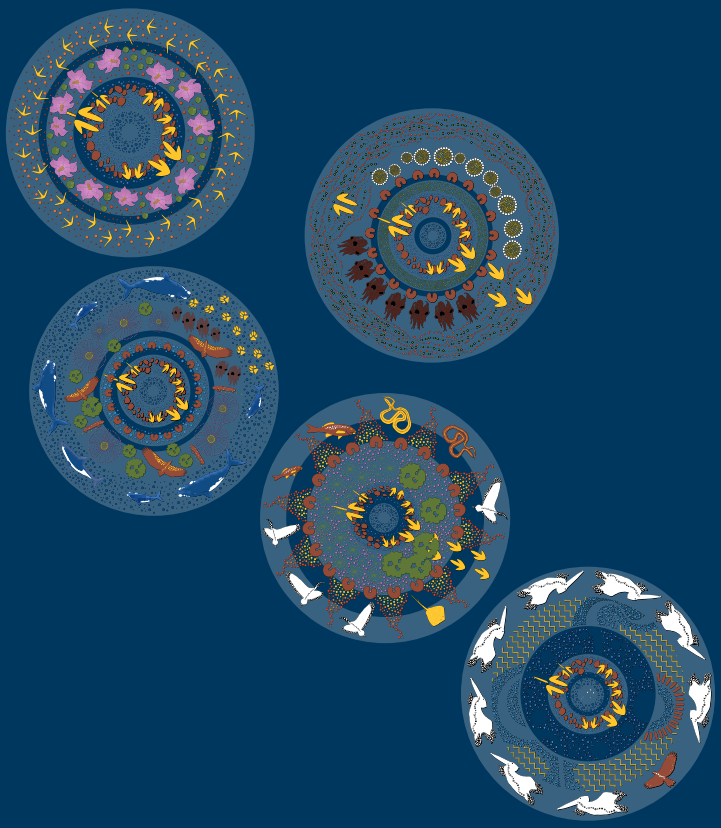
The report is submitted for your information and presentation to Parliament, in accordance with requirements of the *Public Corporations Act 1993* and the *Public Sector Act 2009*.

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

Acknowledgement of Country

We acknowledge the traditional custodians of the lands and waters of South Australia. We pay respect to Elders past, present, emerging and future. We recognise the traditional custodians' unique connection to their lands and waters, language, lore, kinship and ceremony. Through this acknowledgement we commit to ongoing learning and understanding on our journey to reconciliation. We also pay respect to the cultural authority of Aboriginal and Torres Strait Islander people from other areas of Australia.



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A message from the Chair

This year has once again required agility, innovative thinking and courage as the Corporation worked through the second year of the COVID-19 pandemic while providing essential water services for our community.

In response to this time of extraordinary change, the Board worked with the business to set a new strategy and vision: *to deliver trusted water services for a sustainable and healthy South Australia.*

Our Strategy 2020-25 provides clear direction and charts a course for the coming five years while also maintaining a view towards 2050, in recognition that decisions can have a long-term impact on the wellbeing of customers and the community, and the future sustainability of our state.

Critical to our success is the safety and wellbeing of our people, customers and the community. It was pleasing to see a significant 53 per cent reduction in the all-injury frequency rate, down to 9.05. Strong connections with our delivery partners are being created to build a consistent and shared safety culture. In addition to physical safety, there is increased attention and resources to support our people's psychological safety.

As a significant contributor to the economy, the Corporation began delivering a new four-year capital works program which will see us invest more than $2.2 billion through to June 2024. This year, projects across the state — from Moonta to Naracoorte and Kingscote — were fast-tracked to support the local construction industry through the pandemic. With a focus on ensuring water security into the future, planning is underway for seawater desalination plants for Kangaroo Island and the Eyre Peninsula. This sustained investment in water and wastewater infrastructure for the future is helping build a strong South Australia.

Through the *South Australian Government Climate Change Action Plan 2021-2025*, the Corporation is actively leading the delivery of a range of activities, which are aligned to *Our Strategy 2020-25*. The installation of solar panels to generate renewable energy was completed with more than 217,000 panels added to the 150,000 installed last year. This commitment to sustainability is also beginning to bring financial savings to the Corporation.

A focus on diversity and inclusion has this year seen the release of an Aboriginal and Torres Strait Islander Employment and Retention Plan, and Disability Access and Inclusion Plan. The clear and tangible actions outlined in these plans will contribute to building a workforce that represents the communities we serve.

As the alliance with Allwater drew to a close after 10 years, contracts were signed in late 2020 with our new metropolitan service providers. Lendlease will provide field services, and SUEZ Water will provide production and treatment. The new model of service delivery will achieve significant positive change that directly benefits our customers, incorporating service improvements that are aligned with customers' expectations.

Our support for the South Australian Government's COVID-19 pandemic response continued. Through the public sector mobilisation, many of our people were involved in contact tracing, SA Police administration support, State Emergency Information Contact Call Centre support and hospital concierge duties.

The program to progressively open reservoir reserves for public access delivered multiple milestones for this government priority initiative. Hope Valley Reservoir Reserve opened in late 2020 and we are working closely with the cross-government taskforce and the community at Happy Valley as we prepare for public access at the southern metropolitan reservoir reserve from late 2021.

Right across South Australia, our people showed exceptional dedication and resilience to deliver for our customers and the community. On behalf of the Board I thank all our people for their commitment and hard work.

I would also like to acknowledge the efforts of my fellow Board members including our Chief Executive, David Ryan, and his revitalised Senior Leadership Team for their leadership, commitment and dedication to the Corporation.

Andrew Fletcher AO
Chair of the Board

A message from the Chief Executive

As our business continued to deliver through times of rapid change, I'm proud of our people who have maintained their focus on safely ensuring water services for our customers and the community.

In October 2020 we launched *Our Strategy 2020-25*. The direction we have set is ambitious and success will only be possible with continued focus on understanding our customers' and stakeholders' priorities and delivering the core water services they need and value.

Key to achieving our strategy is improving the way we work. Our people are actively sharing, developing and implementing ideas that improve our business, with our online Ideas Tank now capturing ideas and guiding them through evaluation.

Exciting progress was seen this year on a significant initiative conceived by our people, with the final solar panels installed as part of our industry-leading zero cost energy future program. Over the year we have progressively energised panels at 25 sites and connected them to the grid, generating renewable energy to power our operations.

Through our smart maintenance program, our people are finding new ways to use technology to identify and forecast when assets need to be repaired or replaced. This expands our use of technology to monitor and proactively manage our network and infrastructure.

The growth of digital services continues to improve outcomes for our customers and this year brought eBilling to our commercial customers and managing agents, among others. There are now close to 236,000 properties registered for eBills up by more than 110,000 in 2020-21.

Our reservoir reserves notched up more than 226,000 visitors since April 2019, showing strong community involvement and interest in enjoying, exploring and preserving these special places across the state. Hope Valley Reservoir Reserve was opened for land-based activities in December 2020 and at Myponga, on-water access began in March 2021. Through the Reservoirs Partnership Program we are supporting grassroots activities and initiatives that use the reservoir reserves.

Supporting Aboriginal-owned businesses, sharing Indigenous knowledge and building a culturally safe workplace are key actions in our Stretch Reconciliation Action Plan.

This year we opened a community and cultural space at the new Murray Bridge Wastewater Pump Station that shares the culture of the Ngarrindjeri people and features an interpretive walking trail depicting the important water sites on Ngarrindjeri Country.

As host of the national water conference Ozwater'21, we welcomed 2,500 delegates from across Australia to Adelaide in May 2021 to share their expertise and technical knowledge with the water industry. Over three days, Ozwater'21 explored the theme 'reimagining our water future' through a diverse program of keynote speakers, technical presentations, workshops, trade exhibitions and panel discussions. Our people were involved as presenters and facilitators as well as contributing as panellists and in the exhibition hall.

It was great to be part of the first in-person event hosted by our Pride Together network. The national Pride in Water events at Ozwater'21 demonstrated the wider water industry's support for the LGBTIQ+ community and enabled people to understand the value and contribution that diverse experiences and views bring to our everyday operations.

By supporting and developing women in our business, we now have nearly 42 per cent of our leadership positions held by women, including five of our seven executive roles.

Through the first half of 2021, we worked closely with Lendlease, SUEZ and Allwater to transition ahead of the contract changeover in July 2021 for metropolitan field, and production and treatment services. The Adelaide Services Alliance finished strongly having brought innovative thinking and ideas to our state over the past decade. The lessons learnt from this alliance have informed our new direction and I am looking forward to working with our new partners.

Our business remains strong, delivering a return above budget following a warm and dry year which saw an increase in water sales, together with a reduction in electricity expenses and interest costs.

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.

As the COVID-19 pandemic continued, our workforce remained adaptable and flexible, with business continuity plans in place to manage changing working environments, including a statewide circuit breaker lockdown in November 2020. Our COVID-19 wastewater testing was recognised by the Australian Water Association, winning the South Australian award for Excellence in Research and Development. In addition, our people undertook a range of activities supporting the lead agency SA Health, and other government agencies involved in keeping our community safe through the pandemic.

On behalf of the Senior Leadership Team, I thank all our people for their dedication to delivering essential water services and improving our business through a time of uncertainty. We met the challenges head-on and never lost sight of our vision to ensure a sustainable and healthy community.

David Ryan
Chief Executive

67,726 MWh
of renewable energy generated

226,000+
visitors to reservoir reserves since 2019

235,842
properties receiving eBills

About SA Water

Our vision

Delivering trusted water services for a sustainable and healthy South Australia.

Our organisation

We are South Australia's leading provider of water services for more than 1.7 million people. For 165 years we have been working together with South Australians to ensure a reliable supply of safe, clean water and a dependable sewerage system. We deliver for customers by ensuring continuity of service, making smart asset decisions, responding to changing operational environments and achieving operational efficiencies to keep costs down.

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.


SA Water

Our strategy

Our Strategy 2020-25 sets a clear direction and charts our course for five years. It maintains a view towards 2050 because decisions we make can have a long-term impact on the wellbeing of our customers and community, and the future sustainability of South Australia.

Its development was informed by extensive research and engagement with our customers and stakeholders, our owner, and our people, while also ensuring we meet our regulatory responsibilities and consider future scenarios and risks.

Our Strategy 2020-25 supports the achievement of the United Nations Sustainable Development Goals.

To achieve our vision of delivering trusted water services for a sustainable and healthy South Australia, we have five strategic areas of focus:

1. Driving customer outcomes

We provide our customers with safe, smart, reliable and affordable water services. To achieve this, we maintain trust, ensure water quality and asset reliability, and provide continuity of service by preventing or minimising temporary service interruptions. We deploy connected and intelligent assets to make smart decisions and operate efficiently so our services remain affordable.

2. Water for the future

Our production and treatment activities ensure the water we provide is fit for our customers to use, and to be recycled or returned to the environment. We harvest, store, treat, distribute and reuse water to provide fit for purpose water services to our customers to stimulate economic growth and meet customer needs.

3. Healthy communities

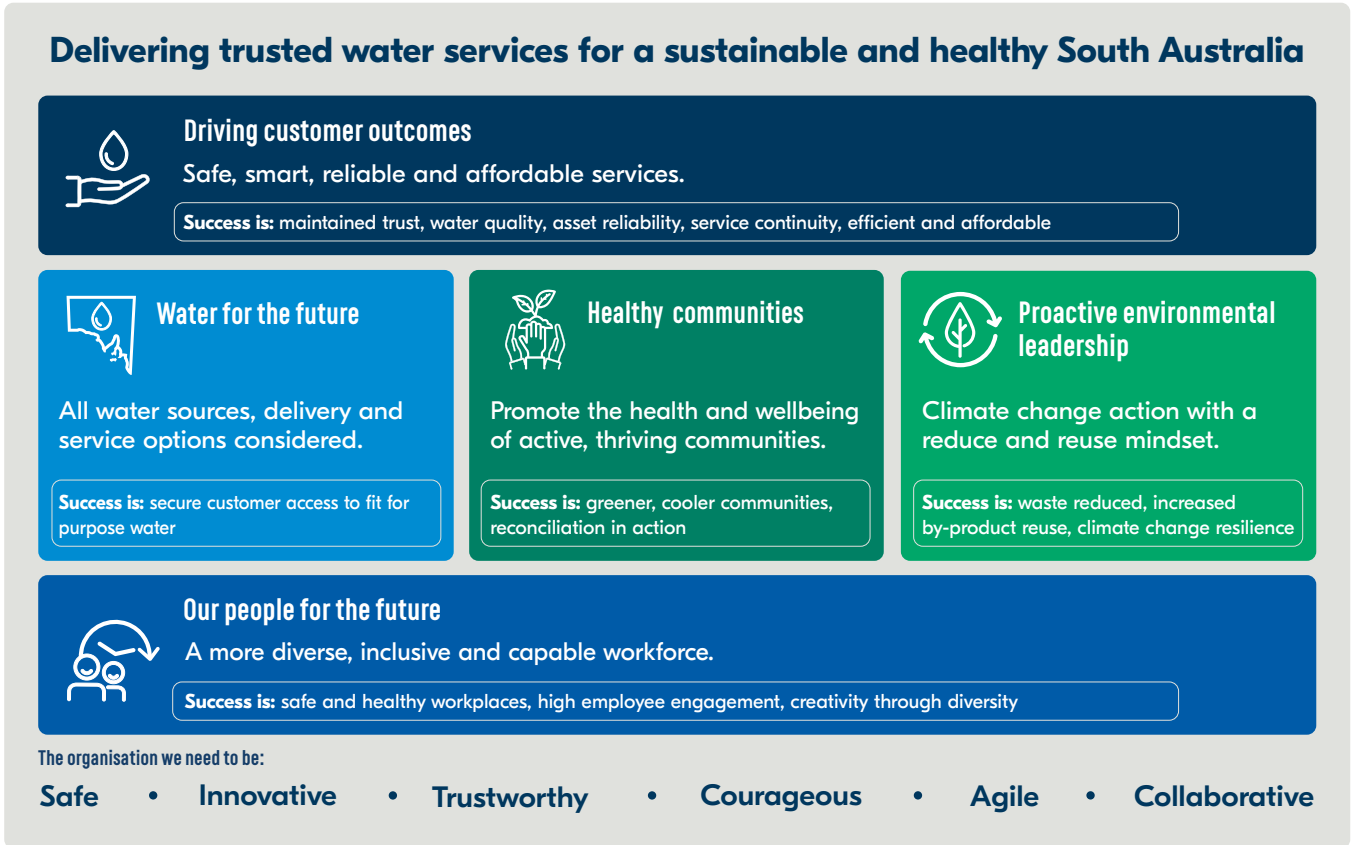
We support and promote the health and wellbeing of an active, thriving South Australia. This is achieved by building sustainable and liveable communities. We share new ways of using water effectively and efficiently to create comfortable, green spaces that support wellbeing. Through actions to achieve reconciliation, we support stronger Aboriginal and Torres Strait Islander communities by helping to create economic opportunities.

4. Proactive environmental leadership

As a leader in environmental management, and by partnering with our stakeholders, customers and community, we are taking action to adapt to climate change, and finding ways to reduce our greenhouse gas emissions. We make decisions that reduce waste and grow opportunities to reuse resources and by-products of our production processes to create environmental benefits.

5. Our people for the future

We proactively grow a diverse and inclusive business with people who reflect the community we serve. This brings creative thinking and diversity of thought to build innovation, embracing technology to help us be safer and more efficient. Our people work safely and are part of a high performing culture where learning and collaboration deliver great customer outcomes.



Our strategy outlines the attributes of the organisation we need to be:

Safe
Being safe from injury or harm at work is not negotiable. Our services and the way we deliver them keeps our people, customers and community safe.

Innovative
Being innovative and creative brings new ideas and uses existing ideas in new ways. We listen to learn, partner with others, seek diverse views, and problem solve to achieve smart solutions.

Trustworthy
Being trustworthy instils confidence. Our actions match our words, and we are open, transparent and ethical.

Courageous
Being courageous means considering new ways and striving for more. We are brave, bold, and prepared to lead and influence.

Agile
Being agile ensures we are responsive and quick. We actively adapt and deliver lean, efficient and effective solutions.

Collaborative
Being collaborative produces stronger outcomes. We are united with our partners and community to bring diverse thinking as we solve problems, learn and grow.

Our services

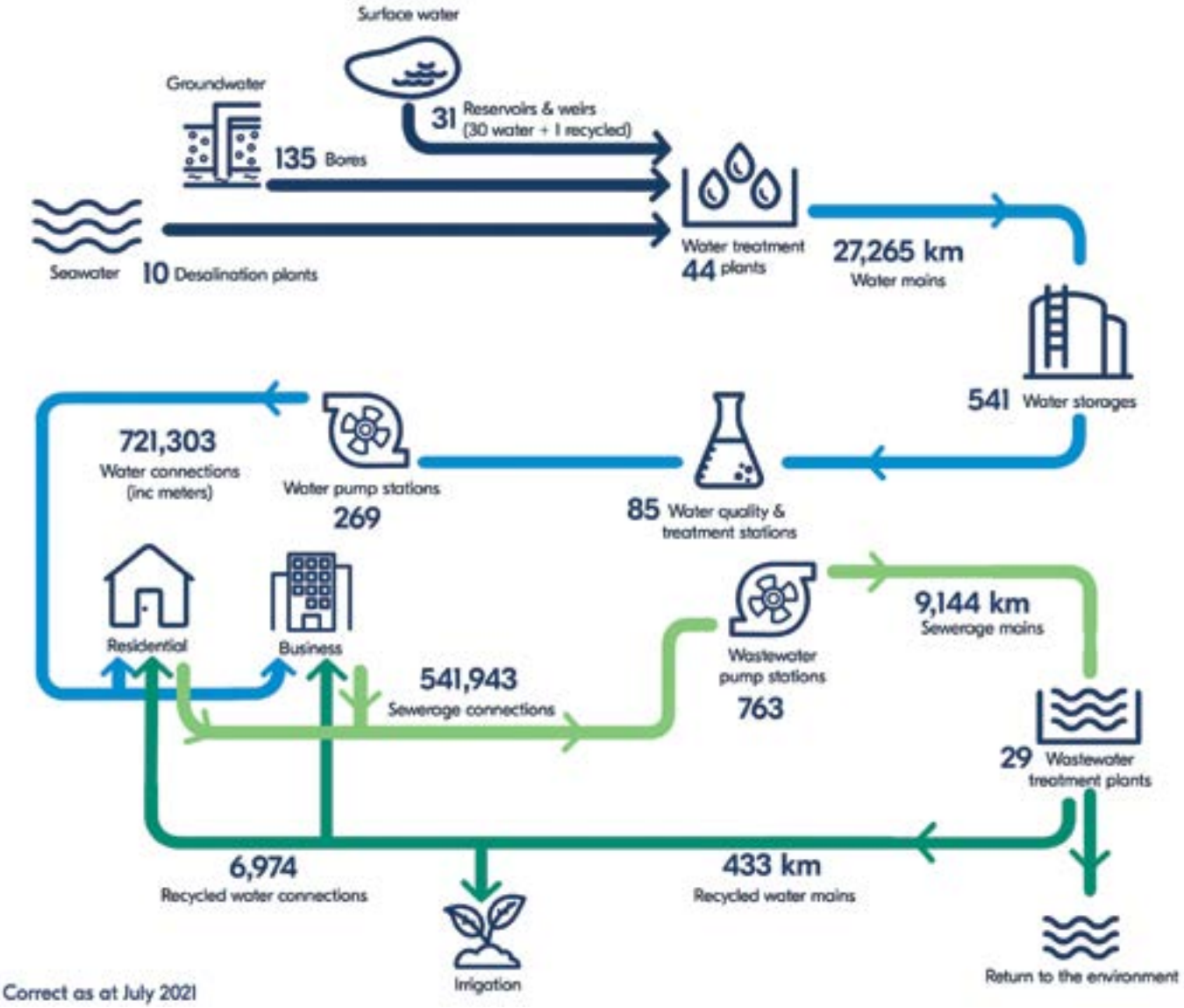
Every day we provide essential water services to cities, suburbs and towns across South Australia.

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.

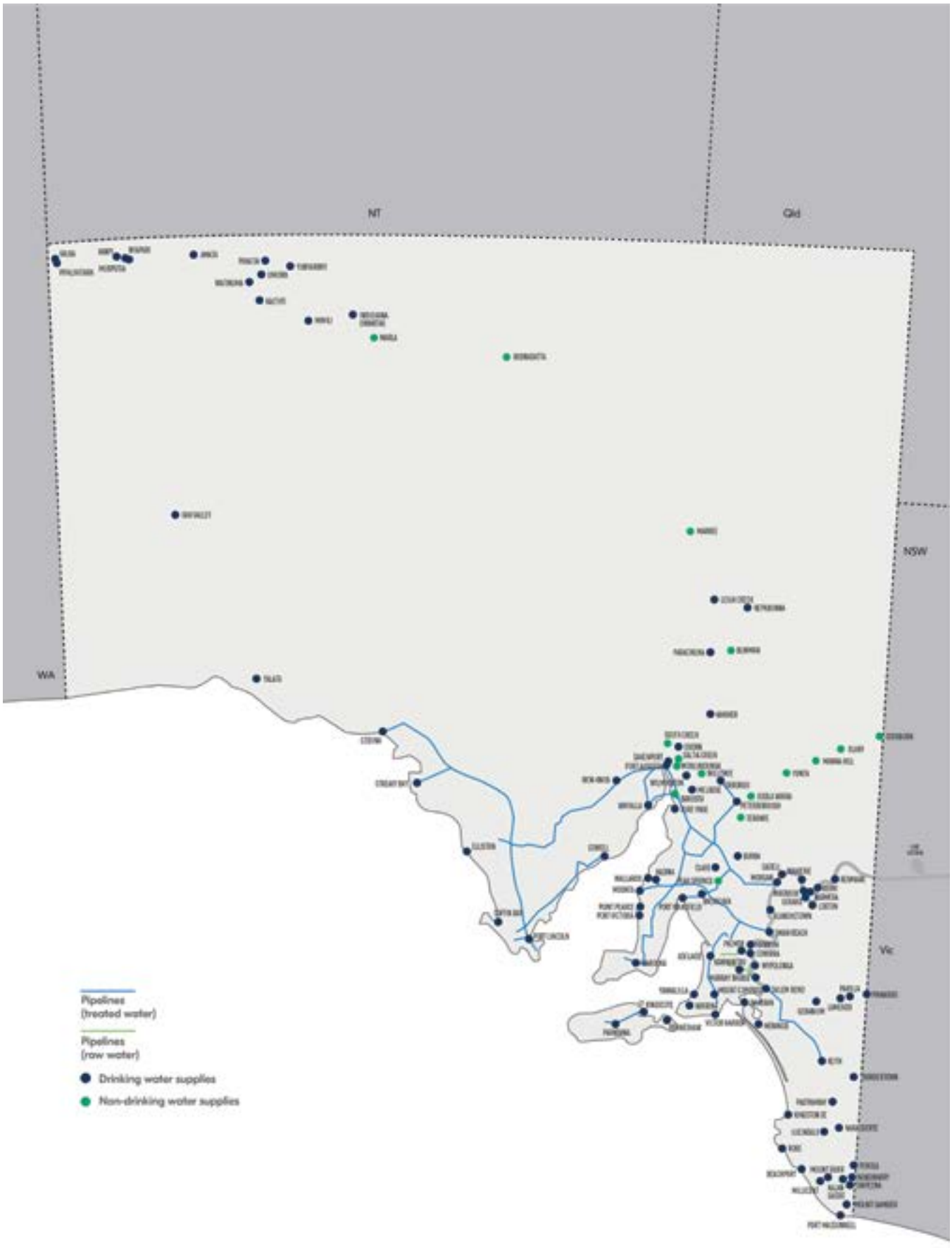
Of Australia's water utilities, we have one of the longest water mains supply networks at more than 27,000 kilometres. In addition, we manage more than 9,000 kilometres of sewerage mains and a 419-kilometre-long recycled water network.

Overview of our network and assets

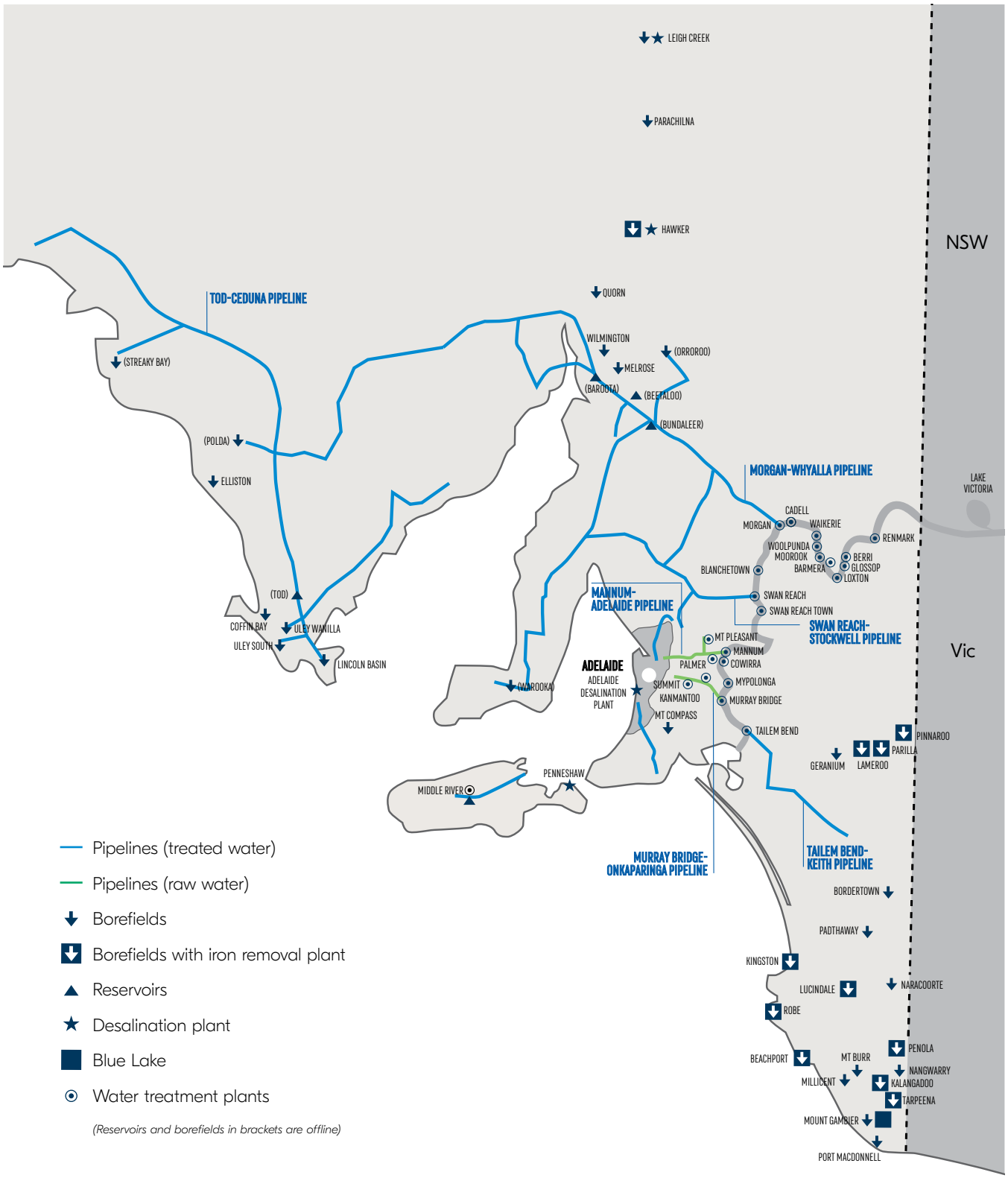


Correct as at July 2021

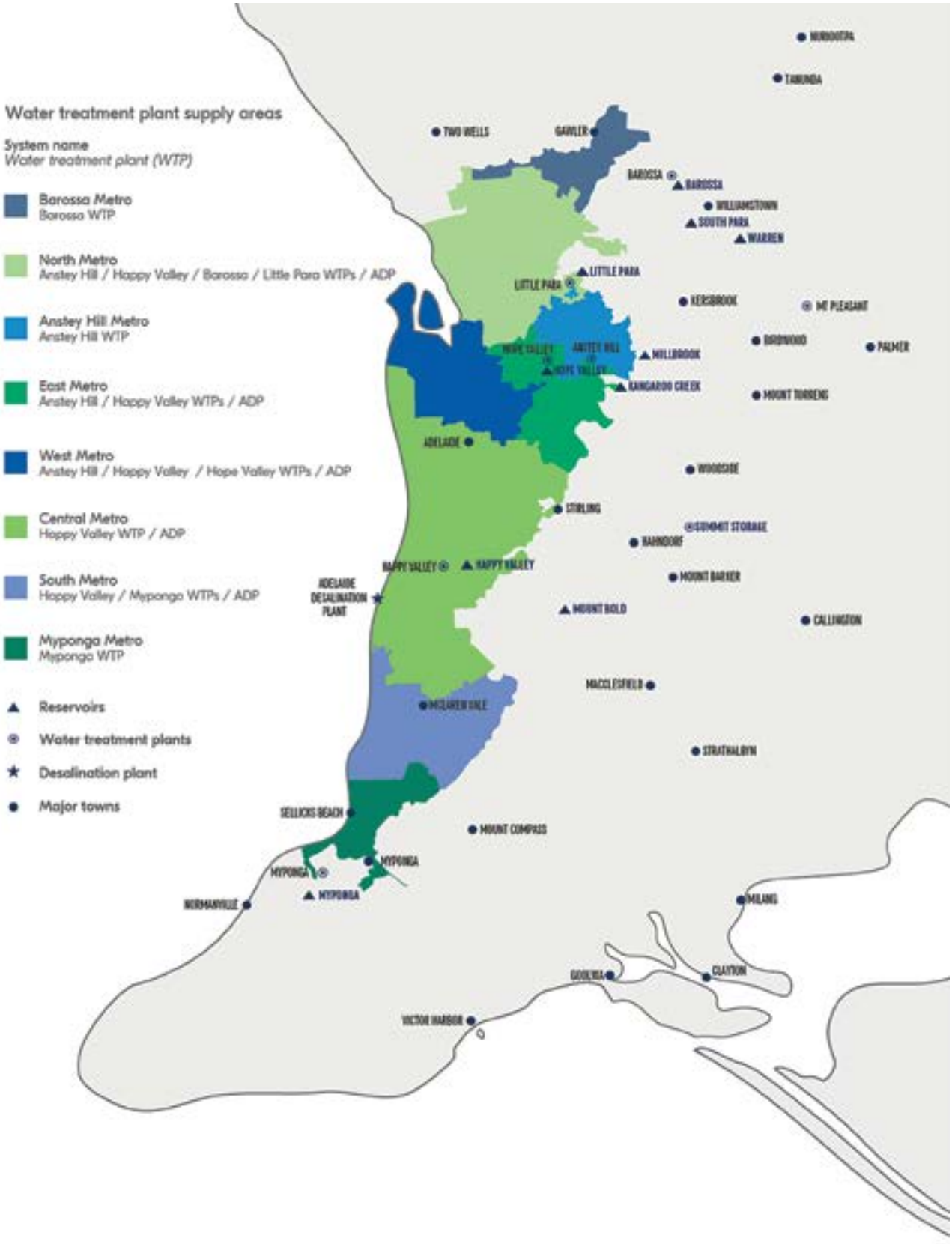
Map of our supply areas



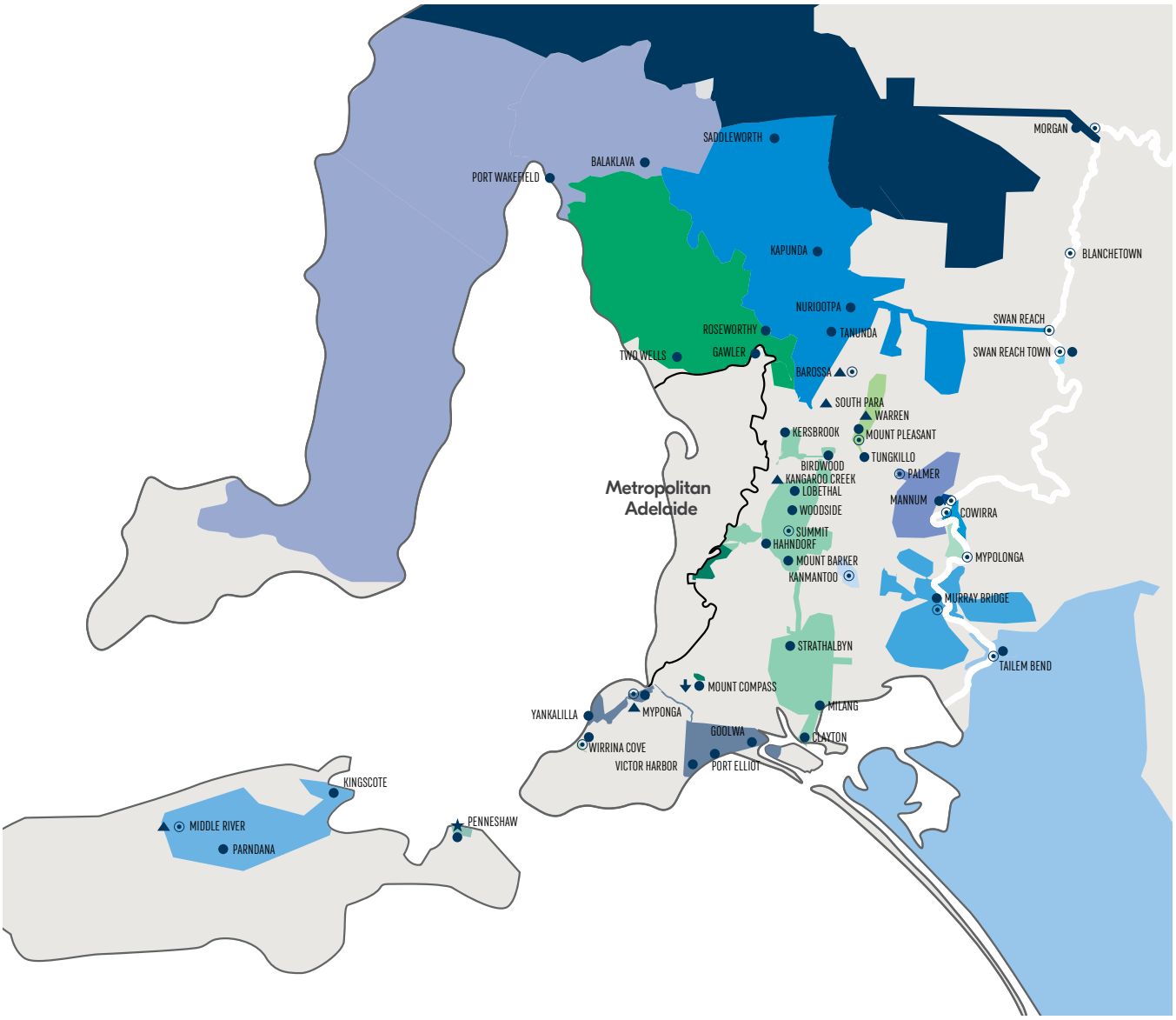
Map of our reservoirs, water treatment plants, borefields and major pipelines



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



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

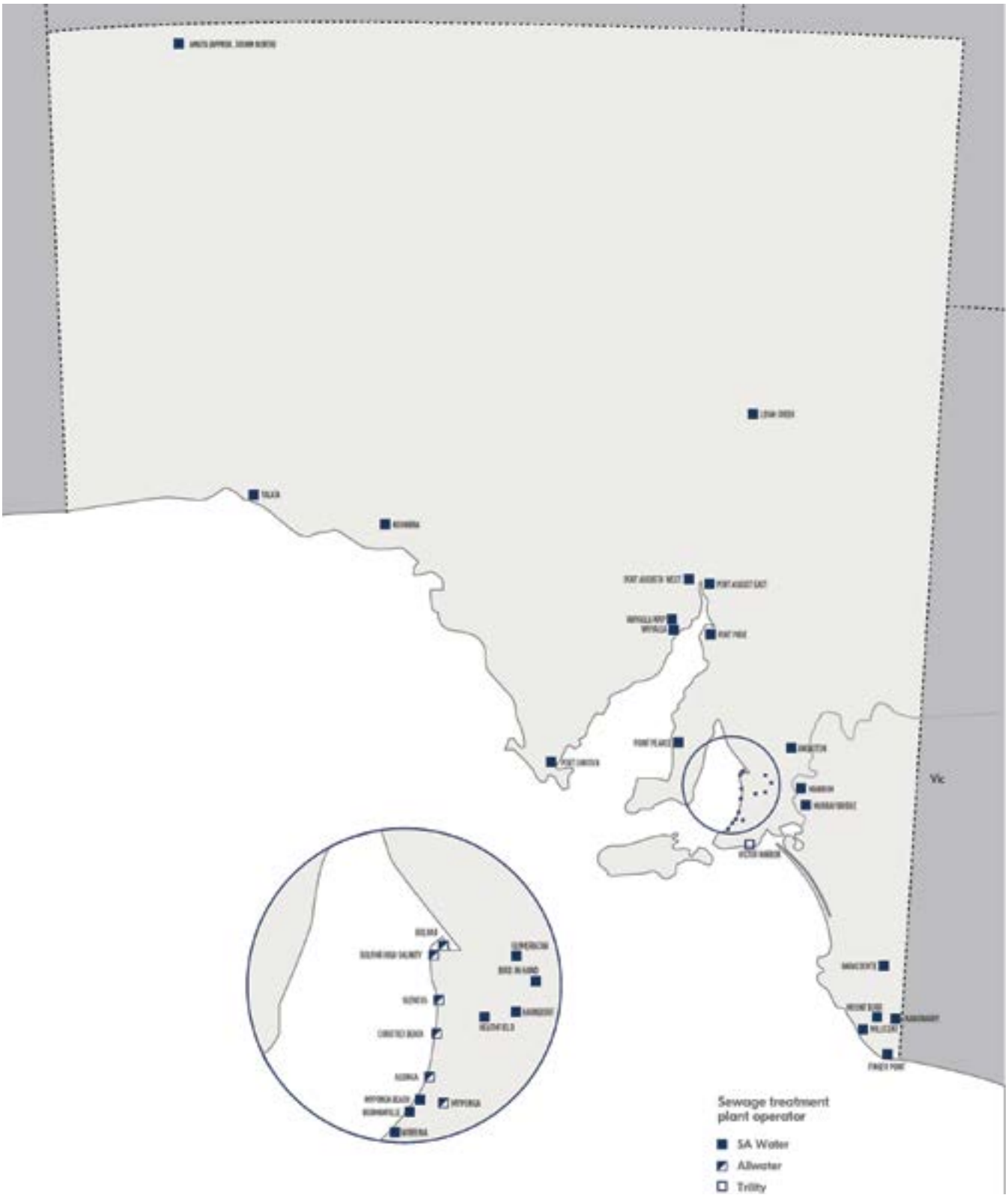


Water treatment plant (WTP) supply areas

- 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

Driving customer outcomes

We provide our customers with safe, smart, reliable and affordable water services. To achieve this, we maintain trust, ensure water quality and asset reliability, and provide continuity of service by preventing or minimising temporary service interruptions. We deploy connected and intelligent assets to make smart decisions and operate efficiently so our services remain affordable.

Price reduction for customers

A significant price reduction came into effect on 1 July 2020 with the average household saving approximately $200 each year, and the average business receiving savings of about $1,350.

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 2019-20: urban water utilities*, which was released in February 2021. Based on 200 kilolitres, our annual residential water and sewerage bill is mid-range among 15 similar-sized utilities around the country.

Aligned with the June 2020 regulatory determination from the Essential Services Commission of South Australia, released in June 2021, it was announced that prices for 2021-22 will increase by CPI of 1.1 per cent.

Sustaining our networks

Through our ongoing work to maintain and sustain our networks, we invested $320.9 million in our water network and infrastructure, and $117.5 million in our wastewater network and infrastructure. This included the continued expansion of smart technologies to optimise the operation and maintenance of our networks and assets.

Through our water main management program, in 2020-21 we installed approximately 60 kilometres of new water mains with 17.6 kilometres laid in metropolitan Adelaide and 42.4 kilometres in country areas of the state.

Across our 27,000 km water network, there were 3,624 water main leaks and breaks in 2020-21.

The Bureau of Meteorology's *National Performance Report 2019-20: urban water utilities*, released in February 2021, shows we performed favourably among our peers, particularly with a reduction in the number of water main leaks and breaks, from 15 per 100 kilometres of main in 2018-19 to 13.5 in 2019-20, which is far lower than the national average of 22.3.

This positive result was reflected in our reporting for the 2020 calendar year, with a 12 per cent reduction in the number of water main incidents compared to 2019. The decrease is typical of more favourable weather conditions and buoyed by our continued strong investment in water main management.

$320.9 million
invested in our water network and infrastructure

$117.5 million
invested in our wastewater network and infrastructure

2019-20 regulatory performance standards achieved

In March 2021, the Essential Services Commission of South Australia (ESCOSA) reported on outcomes against our service standards for 2019-20.

Of the 18 service standards, 17 were met outright and the final standard considered to have been achieved on best endeavours, on the basis that it was within one per cent of the target and with mitigating circumstances for a proportion of the missed events.

In 2019-20, we met or exceeded all standards in the metropolitan and regional areas for restoration timeliness for water and sewerage service interruptions.

While the duration of unplanned sewer interruptions was identified as an area for improvement, initiatives we have implemented resulted in a reduction in the duration of unplanned water interruptions in 2019-20. It came down in metropolitan areas from 243 minutes in 2018-19 to 204 minutes, and in regional areas from 233 minutes in 2018-19 to 201 minutes.

In addition, we reported fewer unplanned service interruptions in the water network in 2019-20 compared to the two previous years.

We have implemented plans to investigate and reduce the frequency and duration of unplanned interruptions and continue to monitor our performance improvements in this area.

In metropolitan areas in 2019-20, our crews attended 100 per cent of water network breaks and leaks within target timeframes, and in regional areas they attended 99 per cent within target timeframes.

The number of customer complaints across both water and sewerage services, remained steady at 1,597, compared with 1,568 in 2018-19 and we responded to 98 per cent of written complaints in a timely manner. According to the Bureau of Meteorology's *National performance report 2019-20: urban water utilities*, we are among the major national water utilities receiving the least water and sewerage complaints, with two per 1,000 properties in 2019-20.

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 are set high to meet our customers' expectations.

For a full copy of the 2019-20 SA Water Regulatory Performance Report, visit escosa.sa.gov.au.

Digital services for customers

In 2020-21, our Customer Relationship Management (CRM) system has expanded to include our commercial customers, conveyancers, plumbers and managing agents, giving these customers the option to take up eBilling.

In addition, the CRM is now being used to capture and manage feedback and complaints enabling us to improve our customer service responses through better understanding of our customers.

At 30 June 2021, there were 235,842 properties receiving eBills, up from 154,054 the previous year. Of these, nearly 149,000 properties were registered with mySAWater, our online account management service.

The range of digital forms available on our website continues to grow with eight added to the suite this year including trade waste, irrigated open spaces and deceased estates.

Technology enhances business

Technology is used in a range of leading ways across our business and has continued to improve how we operate and provide services for our customers. Here are some examples of how we have introduced and/or used technology in 2020-21.

Smart maintenance

Through the installation of sensors on pumps in our network in 2020-21, we are using technology to identify and forecast when a pump repair or replacement is needed before failure occurs.

The smart condition monitoring technologies provide accurate insight into an asset's health by measuring vibration displacement of the shaft, and bearing vibrations on our operating rotating equipment such as pumps. Waveform data is captured and analysed using machine learning, and an alert is raised if the asset is showing signs of known fault conditions, or if the pump is vibrating outside normal parameters. This enables well-informed decisions to be made about the urgency of repair, rehabilitation options or asset replacement.

The onsite condition-based monitoring control panel at Murray Bridge which houses equipment that collects data from sensors on pump sets.

Far left: Deploying Roxy, the underwater remote operated vehicle.

Left: Our virtual reality tool was on display at the Ozwater'21 conference in Adelaide in May.

Underwater robotics

This year we trialled the use of underwater robotics to optimise operational activities and asset inspections.

To understand its capabilities and benefits, we used the innovative underwater remote operated vehicle (uROV) to inspect water storage tanks, reservoir infrastructure, and at water treatment plants.

The robot provides high resolution underwater imaging to enable internal inspections of our underwater assets and structures that must remain operating to maintain supply for our customers.

The uROV is an innovative tool that reduces risk to safety, water quality and continuity of supply when undertaking inspections of online water storage and processes. Beyond the trial it continues to be used across our business.

Virtual reality

Using 3D modelling, our Engineering team is improving the way we work. The virtual reality tool provides a physical representation of a new asset and this year was used in Safety in Design workshops and training scenarios for high-risk activities. The 3D technology helps identify risks and hazards that are difficult to spot in a 2D engineering drawing.

In 2020-21 we conducted 103 virtual tours and completed 18 laser scans, which are used to create 3D maps. The 40 maps available are being used for a range of tasks including:

- creating virtual reality environments
- remote condition assessments for infrastructure
- detailed design
- Safety in Design
- reducing or eliminating the need for site visits
- virtual tours.

Aerial solar panel inspections

Our fleet of drones was used to conduct aerial inspections of our solar panel arrays as part of regular maintenance on the panels to ensure their optimal performance. The drones use thermal image analysis to diagnose any faults and check for overloaded components, uneven voltage distribution, failed or fatigued components, and dead battery cells.

Apps for field teams

Our field-based teams across the state are using new technology with the release of the myWork and Cappture apps which reduce manual processes and support improved response times. Both apps were developed and built by our people to ensure they meet the specific needs of our business.

The myWork app enables our field operations, maintenance, and production and treatment workers to raise new work requirements quickly and easily without having to contact multiple colleagues. This streamlines and brings efficiency to their workflow.

Cappture provides a robust, reliable and efficient single point entry for data collected by our Production and Treatment team. Data captured in the app is immediately available on a web-based dashboard enabling our people to see trends in the real-time data and identify treatment performance changes over time.

Top: Project Engineer Tim DeGennaro of the McConnell Dowell Diona joint venture with former General Manager Mark Gobbie at the worksite for the Barossa growth project in Two Wells.

Above: Project Engineer Manager Anusha Perera with Lazlo Bachmayer from the John Holland Guidera O'Connor joint venture at the Myponga Water Treatment Plant.

New capital works program begins

Our new four-year capital works program has begun, to ensure water services continue to improve for South Australians.

In July 2020, work began on four key projects being delivered as part of the capital program:

1. Working with our new water north delivery partner, McConnell Dowell Diona joint venture, the $7.5 million Barossa Growth project will see about 4,500 metres of new water mains laid across the Northern Adelaide plains near Two Wells and Gawler. This will overcome water pressure challenges and enable ongoing growth in the region.
2. With our new wastewater framework partner Fulton Hogan, the $5 million upgrade of the Glenelg Wastewater Treatment Plant is set to improve the quality of treated water that is recycled to green the Adelaide Park Lands or released back to the environment.
3. At Myponga Water Treatment Plant we worked together with our water south framework partner, John Holland Guidera O'Connor joint venture, to repair concrete bunds. This work prevents any potential processing chemical spills from impacting the surrounding environment and enable swift and safe clean up.
4. Work began on the installation of UV disinfection at the Happy Valley Water Treatment Plant. This $21.4 million project is being delivered by our framework partner John Holland Guidera O'Connor joint venture. Construction started in October 2020 and the UV reactors arrived on site in June 2021. When complete, this project will help keep drinking water supplied by the treatment plant clean and safe for our customers.

Wastewater upgrades ensure reliability

In 2020-21, work to ensure reliable wastewater services included:

- **Tea Tree Gully Sustainable Sewers –** work began at two pilot sites in Modbury with 134 metres of sewer main laid and 10 of 17 customers in Glenere Drive connected to our sewer network by 30 June 2021. Significant engagement with Tea Tree Gully customers has ensured their active involvement in the project, influencing how it will be rolled out.
- **Anaerobic digester at Port Lincoln Wastewater Treatment Plant –** in late 2020, the eight-metre-high digester began operating. The digester is used in one of the final treatment stages, helping to process sludge and transform it into a source of renewable energy called biogas. The biogas is used to help power the treatment plant, ensuring sustainable waste management and resource recovery which reduces the plant's carbon footprint. Other works delivered in 2020-21 include installation of the new odour control system, dewatering plant, and general site drainage and road upgrades.
- **Finger Point pipeline upgrade –** this $11 million project was completed in early 2021 with the installation of about seven kilometres of new sewer main near Finger Point. This replaced a section of the 30-kilometre pipe responsible for delivering the wastewater from around 26,000 Mount Gambier residents and businesses to the region's wastewater treatment facility.

Water storage boost for Port Lincoln

A new 10-million-litre concrete tank to boost Port Lincoln's water storage capacity was finished in June 2021.

Part of our ongoing investment to ensure a reliable supply for Eyre Peninsula customers, especially during the warmer months, the six-metre-high tank joins two existing concrete water tanks, increasing total storage at the site to 19 million litres of safe, clean drinking water.

The tank is 51 metres in diameter and covered with a specialised liner to ensure the safety of treated drinking water within the network.

Working with our contractor, we reduced construction time by 75 per cent, delivering the project in six months, significantly less than the traditional timeframe of two years.

This was achieved by fabricating the pre-cast concrete panels off site and craning them into place. This method also reduced the working at height risks and was less labour intensive onsite.

Above: Significant engagement with customers has ensured their active involvement in the Tea Tree Gully Sustainable Sewers project.

Left: The new Summit Storage Tank near Port Lincoln during construction.

Our team was on the ground to keep customers informed through the changeover process in Yankalilla, Normanville and Carrickalinga.

Improved water quality for Fleurieu customers

In March 2021, the drinking water treatment method for customers in Yankalilla, Normanville and Carrickalinga was changed from chlorine to chloramine.

The change completed stage two of the Fleurieu Water Quality Improvement project.

The final disinfection process for customers in these three towns is applied to cleaned and filtered drinking water sourced from the Myponga Reservoir.

Changing from chlorine to chloramine ensures water supplied to customers on the Fleurieu Peninsula remains clean and safe to drink, but with a slightly different and improved flavour profile.

Engaging with the local communities, our team on the ground kept customers informed through the changeover process, including answering questions and offering a taste of the new and improved water supply.

SCADA centralisation a national finalist

The centralisation of our Supervisory Control and Data Acquisition (SCADA) system was acknowledged as a finalist in the 2020 Digital Utility Awards.

SCADA is critical infrastructure that monitors and controls our assets that provide water to our customers' taps, and safely transport and treat wastewater.

Until now, general SCADA practice has been decentralised with critical infrastructure onsite to operate and manage assets. This means if there are failures or issues, site visits are required to assess and undertake repairs. Our team looked for a new and more efficient way to operate and our industry-leading approach to virtualise SCADA has delivered a more robust, resilient and cost effective system that enables us to remotely monitor, control, upgrade and provide quicker operational and disaster recovery support.

The project to centralise SCADA saw:

- the system extended and developed to support additional assets as our network grows
- replacement of our decentralised platform to a central, virtual solution
- our ongoing operational stability and delivery of essential water services with minimal impact on services in any situation, ranging from isolated issues to statewide power interruptions or targeted cyber-attacks.

Woolpunda water wins

Water produced at our Woolpunda Treatment Plant in the Riverland was awarded South Australia's top drop in the annual Water Industry Operators Association of Australia best tasting tap water competition.

Water in the Woolpunda system is treated with chloramine and last won in 2018. State winners from the past five years have all come from the Riverland.

Clear result

Customers interested in learning more about the quality and content of their drinking water can now use our online search tool, Your Drinking Water Profile, launched in July 2020.

This new tool presents our water quality data in a simple and accessible way for our customers.

After entering their postcode or suburb name, customers can see water quality information for their location. It is tailored to four popular topics:

1. essentials
2. appliances
3. baristas, brewers or bakers
4. aquariums.

There is also the option to download a print-friendly report that provides a complete analysis of what makes up their drinking water.

Laboratory expertise expands

The Australian Water Quality Centre (AWQC), our national laboratory service, began a three-year partnership in July 2020 with Yarra Valley Water in Victoria. The partnership sees our AWQC Laboratory Services Team supply field sampling and testing, laboratory analysis and reporting services across a network which serves more than 1.9 million people in Melbourne's northern and eastern suburbs.

The AWQC's Melbourne laboratory is the base for the new contract, with our Adelaide team supporting the work with various specialised services and technology.

Following storms in Victoria in late August 2020, the AWQC responded quickly when Melbourne Water and Yarra Valley Water issued a boil water notice to about 200,000 residents living in more than 100 suburbs.

AWQC field technicians and water quality scientists played a critical role in providing the required water quality monitoring services by continuously sampling and testing water to assess the quality to protect public health. The boil water notice was lifted after two days when the Victorian Department of Health and Human Services was confident the water supply had not been contaminated.

In June 2021 when severe storms again hit parts of Melbourne and the Dandenong Ranges, the AWQC provided critical monitoring services for Yarra Valley Water whose customers in Kallista, Sherbrooke and The Patch were directed not to drink tap water after a water tank was damaged.

Laboratory Services teams worked around the clock to provide emergency water quality sampling and testing services at sampling points across the affected suburbs.

Left: The new drinking water profile tool on our website presents simple and accessible water quality data.

Below (left and right): The AWQC team in Melbourne provided sampling and testing for Melbourne Water and Yarra Valley Water following storms in August 2020.

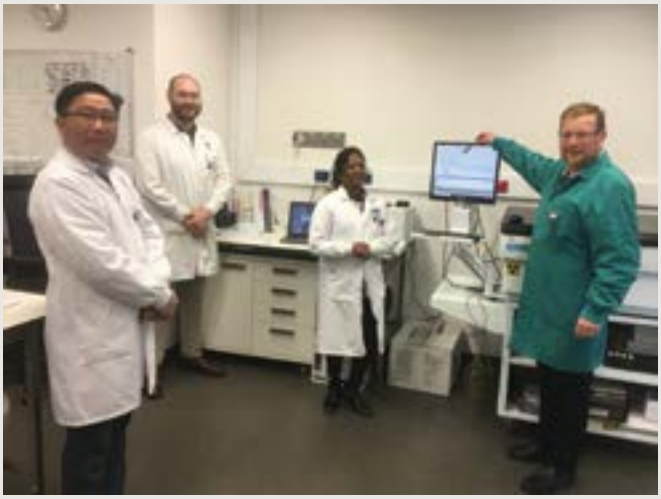
Our Melbourne-based AWQC team moved into new laboratories in April 2021. Equipped with advanced instrumentation for the analysis of water and wastewater, the facilities enable us to accommodate increasing demand for sampling, field testing and laboratory analysis services from eastern states water utilities.

In January 2021, the AWQC attained National Association of Testing Authorities accreditation for the analysis of radiation in waters, sediments and sludges, and now provides this valuable service to our business and other utilities and organisations around the country.

Informed decision-making through risk management

Strategic risk management supports our forward planning and critical thinking to enable well-informed decision-making across our operations. We work to the principles of risk management as set out in the international risk management standard AS ISO 31000:2018 Risk Management — Guidelines.

To ensure we have appropriate and adequate control measures in place, an updated risk profile was developed in 2020-21.



Above: The AWQC's new purpose-built laboratory in Melbourne.

Left: Dzung Bui, Andrew Kay and Foyjunnessa Foyjunnessa from our Metals, Physical and Radiation team with project consultant John Waters.

Water for the future

Our production and treatment activities ensure the water we provide is fit for our customers to use, and to be recycled or returned to the environment. We harvest, store, treat, distribute and reuse water to provide fit for purpose water services to our customers to stimulate economic growth and meet customer needs.

Water security for Kangaroo Island

In 2020-21 we continued our extensive customer engagement with the Kangaroo Island community as we progressed planning for a new desalination plant for the Island.

Face-to-face and online meetings were held in late 2020 and early 2021 with the wider Kangaroo Island community and businesses interested in helping deliver the project. This was supported by information sessions in January for the towns of American River, Baudin Beach, Island Beach and Sapphiretown.

Feedback from residents in these towns helped identify the level of interest for a new water connection from the new desalination plant and enabled us to share project information.

To inform the preferred location of the new desalination plant and ensure we protect and preserve the surrounding natural environment both during construction and once the plant is operational, we have also carried out environment and geotechnical investigations in a number of locations. These works will contribute to the design development of the new desalination plant.

Eyre Peninsula desalination site options explored

Investigations into potential alternative sites for the planned Eyre Peninsula seawater desalination plant were undertaken in 2020-21.

Through our ongoing engagement with the Eyre Peninsula community on future water security for the region, we continued to have conversations with local stakeholders as part of our assessment process for an alternative site that enables cost-effective delivery.

Extensive industry and community consultation was undertaken through a series of meetings, presentations and sessions including with:

- aquaculture and fisheries representatives
- southern Eyre Peninsula councils
- Eyre Peninsula-based government agencies
- community drop-in sessions.

Feedback has reinforced the importance of water security and timely project delivery, as well as maintaining the marine and terrestrial environment.

The drinking water supply for Eyre Peninsula residents remains secure until the desalination plant is complete.

The new desalination plant under construction at Yalata.

State-of-the-art desalination plant for Yalata

Construction began in June 2021 on a $2.3 million desalination plant in the Aboriginal community of Yalata on the state's far west coast, ensuring a continued, reliable and safe supply of drinking water to local residents and businesses.

The predominantly solar powered 160 kilolitre/day plant will replace the existing facility, which is nearing the end of its useful asset life. About 3.8 kilometres of dual-connecting pipework servicing local customers will also be replaced.

Through construction and operation, the Yalata Desalination Plant supports goals in our stretch Reconciliation Action Plan for 2020-23 including:

- supporting liveability and a better life in Aboriginal and Torres Strait Islander communities
- supporting communities with safe drinking water and wastewater services.

New connection demand increases

Following the announcement of the federal government's HomeBuilder grant in June 2020, demand for land surged with developers managing an increase in major land development projects in the preliminary stages.

Working closely with land developers, we provided water, wastewater and recycled water services to these development projects. We met an increase in both minor land development (subdivision) applications as well as projects under construction being supported by our Major Land Development team.

Healthy communities

We support and promote the health and wellbeing of an active, thriving South Australia. This is achieved by building sustainable and liveable communities. We share new ways of using water effectively and efficiently to create comfortable green spaces that support wellbeing. Through actions to achieve reconciliation, we support stronger Aboriginal and Torres Strait Islander communities by helping to create economic opportunities.

Delivering our Stretch Reconciliation Action Plan

Delivering our Stretch Reconciliation Action Plan 2020-23 began in July 2020.

The plan focuses on actions in four areas:

1. community relationships
2. respect cultural and social recognition
3. economic opportunities and improving life and liveability
4. good governance and reporting.

Among the actions is increased support for Aboriginal and Torres Strait Islander businesses through direct employment for various capital projects as well as encouraging our major contractors and partners to set supplier diversity targets and procurement policies.

In 2020-21, we spent more than $2.3 million with Aboriginal businesses, comprising a direct spend in excess of $500,000 and indirect spend of more than $1.7 million.

Other achievements this year:

- At 30 June 2021, Aboriginal employment was 2.80 per cent, having peaked at 2.95 per cent in May.
- Acknowledgment of Country on entry signs were installed outside all Adelaide metropolitan operational sites.
- Cultural awareness training continued to be provided for our people with 60 per cent having completed the training as at 30 June 2021.
- Our Water Wisdom video series was broadcast on the ABC's education channel, ABC ME, and made available on ABC iView.
- Our Twinning Program continued, this year supporting Tauondi Aboriginal College.

We continued to deliver a plumbing course that empowers community members to fix water leaks. In 2020-21 we expanded to offer the course to Aboriginal communities on the far west coast of South Australia. Across the west coast and Anangu Pitjantjatjara Yankunytjatjara (APY) Lands, 220 community members took part in the course this year.

Behind the scenes filming our Water Wisdom series with Jack Buckskin and Uncle Clyde Rigney Senior.

Top left: Project Manager Government Information and Value Karen Harding with Jason Wauchope from Tauondi College. Karen worked with the college to catalogue historical items as part of our Twinning Program.

Top right: Students on the APY Lands took part in the hands-on plumbing course.

Above: Jack James, Paul Herzich and Andrew Beare with the Kungari nga:tadi sculptures.

Community and cultural space opens

In November 2020, the community and cultural space at our new Murray Bridge Wastewater Pump Station on Jervois Road in Swanport was opened, following the completion of unique design, artwork and planting of about 7,400 native plants.

The landscape and architectural design of the pump station site shares the culture of the Ngarrindjeri people, who are the region's Traditional Owners, and their connection to water. Aboriginal architect and visual artist Paul Herzich guided the process to bring the landscape design to life. The plants are irrigated with recycled water from the nearby wastewater treatment plant.

The pump station has been given the Ngarrindjeri name 'Nankeri tapatawangk', meaning 'place of good water'.

An interpretive walking trail at the site depicts the important water sites within Ngarrindjeri Country, including the River Murray, Long Island, Murray Mouth, Coorong, Lake Alexandrina and Lake Albert. The trail will eventually connect into the Rural City of Murray Bridge's section of the Murray Coorong Trail.

Installed at the head of the trail are two large mosaic-covered sculptures of 'Kungari nga:tadi' — black swan eggs — which were crafted by Adelaide artist Andrew Stock, with contribution from students at Unity College in Murray Bridge.

The space creates a visually appealing southern entrance to Murray Bridge.

Reconciliation partnerships

In 2020-21, we partnered with seven community organisations and events through our inaugural Reconciliation Partnerships Program known as Pirku-Itya, the Kaurna word meaning 'for community'.

Pirku-Itya supports grassroots Aboriginal organisations and not-for-profits across South Australia to run events and programs which contribute to important reconciliation outcomes. The program is an action from our Stretch Reconciliation Action Plan 2020-23.

From helping the Nipapanha Aboriginal Community Corporation to create a cultural heritage museum at Irish Well Hut in the northern Flinders Ranges, to establishing a native foods garden with Moonta's Nharangga Aboriginal Progress Association, each of our partnerships are making a real difference in helping achieve reconciliation outcomes.

More than a word

National Reconciliation Week in 2021 focused on the theme *More than a word. Reconciliation takes action*.

Through the week, we used our social media channels to share what the theme means to our people.

We brought many of our people together in Adelaide, Berri, Goolwa and Port Lincoln to acknowledge the unique and rich cultural connection through ceremony, dance, enjoying native foods and flavours.

In addition, we participated in the National Reconciliation Week breakfast and the Aboriginal Power Cup Carnival which engages young people with Aboriginal culture, education, healthy lifestyle choices, and teamwork, leadership, resilience and life skills.

Left: Aboriginal Elders from Nipapanha Community at the South Australian Museum to research Aboriginal artefacts for the Cultural Museum project at Irish Well Hut.

Below: Uncle Moogy Sumner performed the Smoking Ceremony outside SA Water House.

Right: Innovation Specialist Alex Czura with Lesley Wanganeen from the Nharangga Aboriginal Progress Association scoped the Native Plants Community Garden project on Country at Moonta.

Left: The Berri Workshop team gathered to celebrate National Reconciliation Week.

Bottom far left: The landscaping at the Ethelton Pump Station improved visual amenity of the site and is featured on our website as a demonstration site for the community to learn about creating cool, green spaces.

Bottom left: Planting at our Port Augusta depot.

Creating green spaces

In 2020-21 we adopted a new approach to our property holdings and land around our infrastructure looking for ways to transform these into greener spaces to support thriving communities.

Land and vegetation were refreshed at Glenelg Wastewater Treatment Plant and Ethelton Wastewater Pump Station as demonstration sites for Indigenous landscaping, water sensitive urban design and stormwater reuse.

In addition, greening and cooling was improved at our depots in Clare, Port Augusta and Woodside.

Smart irrigation services were installed for four local councils.

Liveability through urban planning

By building new partnerships with communities, and state and local government, we are developing and sharing new ways of using water to create green spaces which support wellbeing and liveability in South Australia.

Through these relationships, we have influenced and shared ways to use water effectively to create greening and cooling.

This year we collaborated with organisations including:

- Nharangga Aboriginal Progress Association
- Australian Institute of Landscape Architects
- Nursery Garden Industry of South Australia
- SA Autumn Garden Festival
- St Mary's College
- Westside Housing
- Anangu Pitjantjatjara Yankunytjatjara (APY) Lands.

Misting systems were installed at four community schools on the APY Lands, to help keep students cool. In addition, we worked with teachers and students to share knowledge about how to fix their own water taps. To support ongoing education and effective water use, we also provided the schools with soil moisture probes and air temperature sensors.

Through our ongoing focus on effective water use we continue to explore new technology and innovative approaches. In 2020-21, we installed smart irrigation services for four local councils, two in metropolitan Adelaide and two in regional areas, helping them maintain affordable green open spaces by enabling improved management and optimisation of their water use.

To prevent tree root intrusion in our water and wastewater networks, we worked together with local councils to install four tree root barriers. This trial tests a low-cost option to minimise temporary service interruptions for our customers by reducing blockages caused by tree roots.

Expanded access at reservoir reserves

The progressive opening of reservoir reserves for recreational access has continued.

In December 2020, Hope Valley Reservoir Reserve was opened for land-based activities, and in March 2021 at Myponga Reservoir Reserve, on-water access was opened and the accessible land-based area expanded.

An upgrade to facilities at Warren Reservoir Reserve was completed in April 2021 providing visitors with improved car parking, increased picnic facilities, additional toilets and a kayak launch facility.

The kayak launch facilities at Myponga and Warren reservoir reserves are fully accessible and are the first of their kind in South Australia.

To support recreational fishing, about 90,000 native fish were stocked across South Para, Beetaloo and Bundaleer reservoirs.

Community engagement was undertaken on plans for Happy Valley, Mount Bold and Little Para reservoir reserves.

The concept plans for Happy Valley Reservoir Reserve, released in April 2021, were developed with the local community and representatives from environmental and recreational groups.

There was unanimous support for the concept which balances a range of land-based and on-water activities with the natural environment and protection of water quality.

In June 2021, we reached more than 226,000 visitors to reservoir reserves since April 2019.

The first Reservoirs Partnership Program opened in late 2020 providing sponsorship opportunities for grassroot activities and initiatives using the reservoir reserves. Four community groups were selected to receive support with outcomes from these activities to be seen in 2021-22.

226,000+
visitors to reservoir reserves since 2019

Above: On-water activities were introduced at Myponga Reservoir Reserve.

Right: Hope Valley Reservoir Reserve was opened in December 2020.

Supporting the state's COVID-19 response

In the second year of the COVID-19 pandemic, we continued to support our customers, the South Australian community and our people.

As part of the South Australian Government public sector workforce mobilisation, we provided personnel to undertake a range of tasks including contact tracing, SA Police administration support, State Emergency Information Contact Call Centre support and hospital concierge duties.

With business continuity plans in place, our people responded rapidly to the statewide circuit breaker lockdown in November 2020. Frontline teams implemented operating models to protect their health and office-based workers able to work from home did so. This enabled business-critical teams to continue working safely at our shared workplaces.

Services for customers remained unaffected by the lockdown. Throughout this period, we kept our people and customers safe by implementing and maintaining state government community and public sector risk measures.

Working on behalf of the Murray Darling Basin Authority, our River Murray operations team continued their work along the river, including in New South Wales and Victoria through periods of border restrictions.

Sewer subs

Building on the work done in 2019-20, this year we continued to provide COVID-19 wastewater testing for South Australia and began testing for Tasmania, as well as some businesses.

In early 2021, we began trialling submarine-like devices in our COVID-19 wastewater testing. The devices are sent into our wastewater network to test for COVID-19 in untreated sewage, fast-tracking our ability to help with the state's pandemic response.

The 20-centimetre-long 'sewer submarines' are 3D printed in-house and can be submerged in wastewater for up to 24 hours. They enable higher resolution of testing results.

Quite quickly the technology proved to be an effective sampling tool bringing improved efficiency to the process.

Sewage surveillance awarded

In November 2020, our nation-leading efforts to monitor and detect COVID-19 in wastewater was awarded at the Australian Water Association's South Australian Water Awards.

Won together with Water Research Australia, the award for Excellence in Research and Development recognised our efforts with SA Health to monitor and identify possible COVID-19 cases through analysing wastewater samples from eight wastewater treatment plants across metropolitan and regional South Australia.

Trusting tap

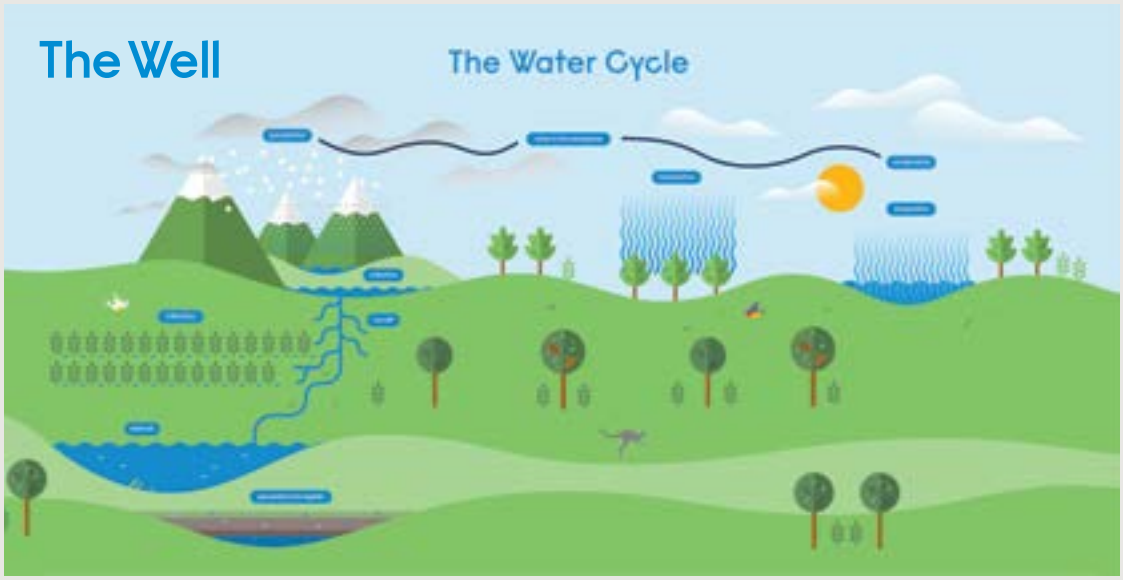
To support people completing 14 days of quarantine when returning home to South Australia from overseas, we worked with SA Health to provide information about the safety of our tap water.

A tap tag was developed to reassure returning travellers of the stringent drinking water standards we meet to provide clean, safe tap water.

In addition, we provided a BYOB bottle with a brochure that explained how we meet or exceed national drinking water quality targets that are regulated by SA Health, and that we follow the Australian framework endorsed by the National Health and Medical Research Council.

Above: Dr Daniel Hoefel and Kelly Hill from Water RA with the award for Excellence in Research and Development.

Left: COVID-19 wastewater sampling continued this year.



Clockwise from top:

New branding for The Well.

Hands-on learning for students from Koonibba Aboriginal School on the APY Lands using our water rig.

Our virtual reality experience was popular with students at Science Alive!

Students from St Aloysius College take part in an interactive workshop about our wastewater treatment process.

Community education, events and engagement

In 2020-21 we updated our education program — The Well. This included a refreshed suite of Australian Curriculum-aligned workshops and sessions for school students.

Participation in our education and community programs was lower than usual due to COVID-19 restrictions. Over the year we had 5,060 students participate in The Well, including 250 Aboriginal students on the APY Lands and the far west coast of the state.

The Kauwi Centre at the Adelaide Desalination Plant was updated to create a space for water exploration which supports delivery of The Well sessions and workshops, as well as community tours of the desalination plant.

With approval from SA Health, in September 2020 we resumed providing our Quench Benches at community events. Through to the end of June 2021, we delivered 9,000 litres of safe, clean drinking water at 35 events including:

- Tasting Australia
- Festival of Cycling
- Ozwater'21
- Coastrek
- Southern Deadly Fun Run.

Through our Water Talks website, we engaged with 15,957 people on a range of projects underway across the state including:

- Kangaroo Island desalination plant
- recreational access to reservoirs
- Tea Tree Gully wastewater connection
- Eyre Peninsula desalination plant.

Water Talks was used to support community involvement in our art on infrastructure project at Myponga Reservoir Reserve.

Partnerships support grass-roots community activities

This year we supported nine community projects through our Community Partnerships Program. The program offers small scale 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 water-related events or programs and help us achieve our goal of being a partner organisation within communities.

Top: Innovation Specialist Alex Czura with Westside Housing tenants who took part in Water Wise Westside.

Above left: Vegetation Services Specialist Shaun Kennedy and Innovation Specialist Alex Czura presented at the SA Autumn Garden Festival in Clare.

Above right: Novita installed a pool platform and ceiling track hoist to support its hydrotherapy program.

Proactive environmental leadership

As a leader in environmental management, and by partnering with our stakeholders, customers and community, we are taking action to adapt to climate change, and finding ways to reduce our greenhouse gas emissions. We make decisions that reduce waste and grow opportunities to reuse resources and by-products of our production processes to create environmental benefits.

Our zero cost energy future

In early 2021 the final solar panels were installed as part of our industry-leading zero cost energy future initiative.

About 217,000 panels were installed this year at sites including Happy Valley, Mount Pleasant, Mallala and Swan Reach as well as Port Lincoln, Kimba, Lock, Arno Bay and Caralue Bluff on the Eyre Peninsula.

To help power our energy intensive water and wastewater treatment and pumping operations, we have installed more than 367,000 panels at 33 sites across the state. Panels at 25 sites are energised and connected to the grid, generating about 18 gigawatt hours of electricity in 2020-21 and nearly 34 megawatt hours of battery storage is installed.

While we still draw electricity from the grid, this project enables us to store and sell energy at other times while helping to buffer our business from the volatility of the electricity spot market and therefore keeping operating costs down.

The solar panel array at Morgan to Whyalla Pipeline Pump Station Number 3.

367,000
solar panels installed at 33 sites

18 GWh
of electricity was generated in 2020-21

Bushfire response and recovery

Following the January 2020 bushfire on Kangaroo Island, we finalised repairs at the Middle River Water Treatment Plant. The main switchboard was replaced and repairs to the magnetic ion exchange plant structure were completed.

The upgrade of the main switchboard means the treatment plant can be powered by a generator, helping ensure future continual operation and security of water to our customers on the Island.

Fires in Cherry Gardens in late January 2021 burnt 19,000 hectares around our Mount Bold Reservoir catchment.

Our bushfire preparedness activities helped contain the ease and speed at which the fire could spread. Maintaining and creating fire breaks as part of our pre-bushfire season significantly contributed to the Country Fire Service's success in containing the fire.

With experienced teams managing the impacts of bushfire within our catchment areas, we were able to minimise water quality and treatment challenges and potential impacts on drinking water supplies.

Ahead of heavy rainfall after the fires, our teams worked alongside the Department for Environment and Water to install sediment control structures to prevent residue from the high-intensity fires reaching the reservoir.

In addition, we used the flexibility in our water management system to move water north and south to prevent water quality issues.

Reducing waste

As a first step to achieve zero net waste, a waste audit was conducted to identify areas and ways to reduce waste and develop principles to guide us in this endeavour.

Through a business-wide innovation challenge, our people were asked for ideas to reduce waste and maximise reuse, aligned to our zero net waste aim. More than 400 people participated and 93 ideas were generated and assessed, with 53 identified as potentially viable improvement solutions. From this, seven were developed, and tested for implementation during the challenge, with the remainder progressing via our Ideas Tank.

One idea implemented reduces waste by refurbishing quality older valves and reusing them, rather than sending them to become scrap. A refurbished older valve has been used to replace a failed valve and was successfully operated in a shut down. We plan to refurbish a further six valves using our in-house skills and resources.

Top: Sediment captured by traps set in the Mount Bold Reservoir Reserve following the Cherry Gardens fires.

Above: Installing the refurbished valve.

Building capability for climate change adaptation

To address the challenges of adapting to climate change and improve decision-making for water utilities, we partnered with Water Research Australia and its members to develop a new online resource for climate change adaptation information.

The Resiliwiki is designed to provide climate change adaptation guidance for water utilities. Building on the Water Services Association of Australia climate change adaptation guidelines, the site provides suggested best-practice assessment approaches.

There are four key resources available at Resiliwiki:

1. A review of global good practice in climate change adaptation.
2. The pathfinder tool that helps identify appropriate assessment approaches and data.
3. A climate change syllabus that outlines fundamental competencies needed by practitioners.
4. A guide for future directions which identifies key areas for improvement by water utilities for improved data-driven decision-making.

The site is available for use by all members of Water Research Australia.

New community drinking fountains

The network of community drinking fountains expanded in 2020-21.

There are now 63 fountains across South Australia connected to our mains supply for members of the community to use. They include both bottle refill and bubbler options, with some also featuring an in-ground dog bowl. Built-in solar lighting makes them bright and easy to find at night.

In collaboration with local councils, 10 drinking fountains were installed this year:

1. Glenelg foreshore
2. Two Wells Village Green
3. Millicent Domain Skatepark and Nature Playground
4. John Watson Drive (Blue Lake/ War War), Mount Gambier
5. Goldenfields Reserve, Golden Grove
6. Port MacDonnell foreshore
7. Steamroller Park, Stirling
8. Bentley Reserve, Holden Hill
9. Port Adelaide Visitor Information Centre
10. Ralli Park, Balaklava

In January 2021 we announced that up to 80 more drinking fountains will be installed across the state over the coming four years.

Our BYOB app maps these and other fountains through an interactive map that displays more than 1,000 drinking fountains in South Australia.

Smart irrigation wins

In late March 2021, we were the only South Australian organisation to be commended at the 2021 iTnews Benchmark Awards when our smart irrigation initiative won the Industrial and Primary Production category.

Through the smart irrigation project, which began in December 2019, we are working with customers to help maintain cool, green open spaces that build healthy communities, while also providing cost and water saving benefits through more effective and site-specific use of water.

This is achieved using real-time data from an integrated system of soil moisture probes, daily weather forecasts and smart water meters, with information provided to water users through a weekly irrigation schedule to optimise water efficiency.

Above: The new drinking fountain at Ralli Park, Balaklava.

Right: Our smart irrigation initiative was recognised at the 2021 iTnews Benchmark Awards.

Finger Point cultural burn

A prescribed burn on land near the Finger Point Wastewater Treatment Plant in March 2021 incorporated fire burning practices used by the Traditional Owners, the Boandik people.

Working in partnership with Burrandies Aboriginal Corporation, the Department for Environment and Water, and the Limestone Coast Landscape Board, the burn acknowledged Finger Point as a culturally significant site.

This was the first time we have collaborated with First Nations people to incorporate traditional fire knowledge into a prescribed burn, and we will look for opportunities to continue this in the future. It was also the first time in about 100 years that there has been a dedicated cultural burn in the area.

Abattoir's recycled wastewater grows livestock fodder

A circular economy is thriving in the Adelaide Hills, where we created an ongoing loop that connects pasture cultivation, livestock grazing, abattoir production and reuse of recycled processing wastewater.

The sustainable outcome enables a climate-independent supply of nutrient-rich water for a primary producer to grow fodder. It helps Thomas Foods International, which processes the producer's livestock, avoid the cost of additional on-site treatment infrastructure. In addition, we increased the volume of water recycled for productive use at our Bird in Hand Wastewater Treatment Plant.

The solution's design came after a fire at Thomas Foods International's Murray Bridge facility saw them shift a large amount of production to their Lobethal base, increasing the processing waste they were discharging into our local sewerage network.

Challenging gravity

Our involvement in the GRAVITY Challenge in late 2020 at Lot Fourteen was part of our drive for innovation.

The challenge brought businesses, government agencies and universities together with innovators including tech start-ups, entrepreneurs and subject matter experts, to collaborate and co-create solutions to some of society's biggest challenges.

Through a collaboration with UK company Spottitt, experts in earth observations satellite and geographic information system analysis, we looked at how satellites might be used to better manage bushfires and detect water leaks.

This involved a retrospective analysis of the Middle River fire on Kangaroo Island to see if satellite imagery, together with data on vegetation and soil moisture, could be found and analysed to predict a fire and enable prevention.

The other issue explored was a timebound observation of Elliston on the Eyre Peninsula to see if satellite monitoring and artificial intelligence algorithms could be used to identify leaks in our underground network.

The challenge provided access to technology not normally used in the water industry as we seek new ways to provide safe, reliable and cost-effective water services.

Feral focus

This year 454 goats were removed from Kangaroo Creek and Montacute, through an aerial muster and an aerial cull.

Proactive removal of the pest species reduces environmental impacts to our Kangaroo Creek Reservoir catchment and help us maintain high quality drinking water for customers across Adelaide.

These collaborative operations took place across lands owned by several agencies including the Department for Environment and Water, National Parks and Wildlife, Forestry SA, Landscape South Australia Hills and Fleurieu, as well as private land.

Above: Matthew Hartman from the Department for Environment and Water with Candice Nayda at the cultural burn on land near Finger Point Wastewater Treatment Plant.

Left: The mustering team with some of the goats removed from Kangaroo Creek and Montacute.

Our people for the future

We proactively grow a diverse and inclusive business with people who reflect the community we serve. This brings creative thinking and diversity of thought to build innovation, embracing technology to help us be safer and more efficient. Our people work safely and are part of a high performing culture where learning and collaboration deliver great customer outcomes.

Improving safety and wellbeing

Our people-centred approach to health, safety and wellbeing continues to yield results with our wellbeing measure achieving above target results, and our all injury frequency rate significantly improving by 53 per cent from 19.52 in 2019-20 to 9.05 in 2020-21. These results have been well supported by our enhanced critical risk review approach, our broadened offering of wellbeing-related training, the technical training verification of competency program, and the introduction of Business Group reporting to improve visibility and accountability of performance.

Taking a harm-based approach to safety, we focus on the potential outcome of an incident as well as the actual outcome. Our resources are prioritised and focused on high potential incidents to prevent a recurrence. There was a slight increase in our high potential incident frequency rate from 1.56 in 2019-20 to 1.89 in 2020-21. While not a desired result, all reported high potential incidents have been near miss incidents with no actual harm, and the engagement and lessons learnt has been positive.

The measurement and monitoring of combined health and safety performance indicators began in July 2020, inclusive of SA Water, Allwater and contractor performance. This is considered a more comprehensive indicator of health and safety performance as it includes the performance of our major partners and contractors when working on our behalf. High potential incident frequency rate, total recordable injury frequency rate and lost time injury frequency rate all improved throughout the 12-month reporting period.

There has been significant effort in the transition to our new metropolitan service delivery model to establish strong relationships with a commitment from our new partners to share, align and standardise health and safety requirements wherever possible.

Our Health and Safety Improvement Plan was revised with additional inputs following a health and safety management system review. The review assessed our systems, frameworks and processes for managing health and safety, including wellbeing and psychosocial risk. This revised plan continues our people-centred approach, with increased focus on risk management and systems.

Technology improves safety and collaboration

In 2020-21, the expansion of our cloud environment, together with enhanced video conferencing facilities, has significantly improved the way our regional and office-based people stay connected, communicate and collaborate, regardless of their location or device. This cohesive functionality has simplified how we connect with external partners, enabling our people to improve their performance and decision-making, and deliver on customer outcomes.

Our vehicle fleet has in-vehicle safety devices installed that will detect a vehicle rollover or panic alert and trigger an alarm to our 24-hour Operations Control Centre in Adelaide.

The safety of our field teams continues to improve with the introduction of field safety alerts. Our field teams across the state receive alerts on their mobile devices about any potential property hazards. This ensures our people can be prepared and take appropriate action to improve safety before arriving onsite.

Strength in diversity and inclusion

Our Diversity and Inclusion Plan outlines four priorities and in 2020-21 we delivered a range of activities and outcomes to achieve our diversity and inclusion targets.

1. Women at SA Water

At 30 June 2021, 41.86 per cent of our leadership positions were held by women as we continue to grow opportunities to develop and support women in our business.

Our Together for Women network marked its first anniversary in March with members of the network taking part in the live-streamed event hosted by the Adelaide International Women's Day Breakfast Committee.

2. Aboriginal and Torres Strait Islander employment and retention

Aboriginal employment was 2.80 per cent at 30 June 2021, having peaked at 2.95 per cent in May.

In April we launched our Aboriginal and Torres Strait Islander Employment and Retention Plan which will help us achieve sustainable employment pathways for future and existing Aboriginal employees by creating development opportunities within our business.

The Collective, a network for our Aboriginal and Torres Strait Islander people, continued to provide opportunities to share experiences, foster culturally appropriate support structures and connect across our business.

Clockwise from top:

Gayle Polley, Chris Bennett, Mikalie Nakos, Jill Sears, Brendan Moore, Princess Laya and Jacqui Moon at the Pride in Water event.

Patrick Squire, Georgia Leske, Ikshula Chopra and Jack Lowe with the paper rainbow chain carrying messages of support to mark International Day Against Homophobia, Biphobia, Interphobia and Transphobia.

Bianca Schutz, Candice Nayda and Shane Adderton were appointed to leadership positions for The Collective.

Alex Monterosso, Beth Ivory, Hoda Adelkhah and Chela Bett joined International Women's Day celebrations.

Participants of our graduate program.

3. Flexible and inclusive workforce

Our Disability Access and Inclusion Plan was launched in November 2020, outlining 39 actions that will guide how we embrace and celebrate the active inclusion of people with diverse life experiences and circumstances. This year our Disability Network was formed with members involved in co-designing action outcomes for the plan. In a South Australian first, we installed accessible kayak launch facilities at Myponga and Warren reservoir reserves. In addition, pathways to work experience opportunities for people living with a disability were created and we piloted face-to-face awareness training with Purple Orange.

In May, our Pride Together network, which connects the LGBTIQ+ community and their allies across our business, hosted its first event in partnership with national network Pride in Water. The Pride in Water events at the Ozwater'21 conference in Adelaide demonstrated the wider water industry's support and enabled people to understand the value and contribution people with diverse experiences and views bring to our everyday operations.

4. Emerging workforce

Diversity in our apprentice programs continues to grow with 40 per cent of the intake in 2020-21 being female or Aboriginal people.

As at 30 June 2021:

- 37 per cent of our trainees are Aboriginal
- 32 per cent of our apprentices are Aboriginal or female
- 60 per cent of our cadets are Aboriginal or female.

Our support continued this year for the University of Adelaide's Women in STEM Careers Program which supports 100 women studying in the STEM fields, a number of whom have gone on to join our graduate program.

Spotlight on innovation and excellence

The 2020 Innovation and Excellence Awards recognised people from across our business who had shown excellence and new thinking to serve our customers.

Safety Leadership

Lana Haigh from our Engineering Team was acknowledged for her work to develop and present Safety in Design training.

The training provided participants with an understanding of why Safety in Design processes need to be implemented and areas where we can drive improvements.

Lana's efforts inspired our people to do things differently and bring improved design, and better safety practices, plus cost-efficient outcomes for our customers.

Together

Our Business Relations, Trade Waste, Wastewater & Environment, and Systems Planning teams came together to develop an innovative solution for two customers in the Adelaide Hills.

Taking an open-minded approach to a challenge presented by one of our largest customers, Thomas Foods International, they identified an opportunity for a local farmer to access recycled water from our Bird in Hand Wastewater Treatment which provided economic and environmental value to both customers.

Better Life

A collaborative team effort drove great customer outcomes and widespread benefits including savings and fairer bills for residential and business, regional, retirement village and trade waste customers.

The team worked together to influence long-held pricing policies, fee structures and billing practices, while also delivering a key government initiative to reduce the cost of living and doing business in South Australia.

Innovation

Harry Roberts, from our Wastewater and Environment team, implemented a new approach to managing midge flies at Bolivar Wastewater Treatment Plant.

An irrigated vegetation screen was created between the lagoons and the Northern Connector expressway. By screening the lights from the expressway, and providing a cool, attractive resting place for the midge flies, the number reaching the expressway has been reduced by 50 to 70 per cent.

This project has improved the quality of life of residents living near Bolivar and mitigated the risks associated with midge flies for tens of thousands of commuters on the Northern Connector every day.

Strength in Diversity and Inclusion

This new award for 2020 was won by Pride Together, a group developed by our graduates to provide visibility, awareness and allies for LGBTIQ+ people across our business, ensuring they feel safe, included and valued.

Having perspectives across our business that represent the diverse community we serve helps us make better and more informed decisions about the services we provide.

Pride Together generates pride among our people for being part of an organisation that has an inclusive culture where everyone belongs, is valued and respected.

Environment

Our BYOB campaign won the Environment Award for promoting drinking tap water, one of the best choices anyone can make for their health, their wallet, and the environment.

The campaign brought together tap water messaging with our re-useable BYOB bottle, public drinking fountains, the BYOB app, and our presence at community events with the Quench Benches and Miss Isla. Together, these elements encourage people to change their behaviour and reduce demand for single-use plastic, and to drink tap water more often.

Above and Beyond

The three joint winners of this award represented a range of teams who responded with resilience, innovation and compassion to support our people and our customers through the first year of the COVID-19 pandemic. The teams provided:

- proactive customer assistance to support our most vulnerable customers through the financial impact of the pandemic
- IT support for working from home, enabling a new way of working to ensure service continuity for our customers and the community
- internal communication to keep our people informed and safe to ensure our essential services workforce remained empowered, engaged and resilient.

Inspirational Leadership

David Coombe was acknowledged as a highly motivating leader of our Customer Experience team, driving creativity, innovation, and high performance to improve the experience we provide to our customers.

David's empowering approach enabled his team members to bring their whole selves to work, while holding them accountable for contributing to both team and organisation-wide objectives.

Engagement survey

In April 2021 we took part in the public sector-wide I Work for SA Your Voice survey. When made available in 2021-22, results will provide insights into employee perceptions of workplace practices, identifying areas that are effective and areas for improvement. Our response rate of 78 per cent was the highest compared to similar-sized government agencies and departments.

Left: Paul Premnath, Joe Gesti and Stacey Smith, representing the winning team for the Together Award.

Top: The Pride Together network won the inaugural Strength in Diversity and Inclusion Award.

Above: The BYOB campaign team, winners of the Environment Award.

Research focus

Our Research team undertakes a range of research projects, and in 2020-21 there were 76 active projects.

The research program has a broad scope, from customer perceptions of drinking water, to increasing water recycling, smart technology and improved land management.

We work closely with other water utilities and research organisations with the view to improving the services we provide to customers.

As part of our research in 2020-21, we looked at mathematical modelling for calcite dissolution and plume migration, as well as improving detection of cyanobacterial taste and odour production.

Mathematical modelling for calcite dissolution and plume migration

Aim

To better understand calcium dissolution impact and use an updated groundwater model to predict different scenarios to inform risk assessment and future planning.

Situation

The Aldinga Managed Aquifer Recharge (MAR) is used to store recycled water from Christies Beach Wastewater Treatment Plant. Benefits of storing recycled water include decreasing the volume of treated effluent discharged to the Gulf St Vincent in winter when irrigation demand is low, and supplying it for use in the warmer months when irrigation demand increases.

This increases the water available for vineyard irrigation and associated business growth in the Willunga Basin area while reducing dependence on local groundwater sources which have been over-used.

Injection of recycled water into the aquifer at Aldinga causes some degree of calcium dissolution due to the reactions between the injected water and the aquifer water. The impact and degree of dissolution caused by the Aldinga MAR is largely unknown.

Outcome

This research project seeks to understand and address environmental risks associated with calcite dissolution for bore instability and aquifer weathering, and to predict scenario-based plume migration behaviour as a mitigation measure.

2020-21 achievements

Starting in March 2021, three final year undergraduate maths students from UniSA have worked on this project as part of the university's Mathemwatics Clinic. The students have been coached by two UniSA academic staff and worked with our Wastewater and Environment team.

They have developed a software package to model calcium dissolution in aquifers and to explore potential mitigation measures.

This collaboration with UniSA is the only program of its kind in Australia, giving students hands-on experience with a large real world research project.

Work on this project will continue in 2021-22.

The UniSA Student research team at Christies Beach Wastewater Treatment Plant.

Improving detection of cyanobacterial taste and odour production

Aim

To determine if fluorescent dissolved organic matter (fDOM) used with algal detecting sensors can provide further information on cyanobacterial taste and odour production or cyanobacterial cell health.

Situation

Cyanobacteria and their associated metabolites remain a challenge for water utilities around the world. Our treatment plants deal with earthy and musty taste and odour compounds from our source water catchments due to cyanobacterial blooms.

Managing these compounds is critical to ensuring our customers receive drinking water that does not taste earthy or musty. We do this through multibarrier water treatment processes. Our current monitoring program, while extensive, can be limited in providing time sensitive results to water treatment plant operators who need to adjust the treatment response to the formation and decline of blooms.

Previous studies have established that the use of fluorescence sensors can provide near real-time monitoring for cyanobacterial cells. Preliminary studies have shown that fDOM can be a strong surrogate for dissolved organic compounds and potentially can be used for cyanobacterial-derived organic matter and cell activity, as well as taste and odour compound release.

If fluorescence sensors can be used as a surrogate for cyanobacterial-derived compounds, these measurements can be used by operators to rapidly make decisions about taste and odour treatment options, an improvement on traditional methods that can take at least 24 hours.

This research is being conducted by our Water Science team with support from treatment plant operators at Happy Valley and Myponga.

Outcome

This research project seeks to determine if fluorescence can be used to monitor dissolved organic matter and, by extension, cyanobacterial-derived metabolites that can be linked to dissolved taste and odours, toxins, and cell health.

2020-21 achievements

The study has established a good correlation between fDOM and dissolved organic carbon.

The preliminary data has shown that fDOM measurements combined with other algal measurements can be potentially linked to dissolved taste and odour compounds. Further monitoring is required to validate these preliminary results.

The data generated from this project has resulted in the first working iteration of an algal dashboard for Happy Valley and Myponga reservoirs. This dashboard provides a clear, user-friendly display for algal and cyanobacterial-related information at the inlet of our drinking water treatment plants in near real-time which aids the management of cyanobacteria.

Work on this project will continue in 2021-22.

Our Water Science team is researching how to improve the detection of cyanobacterial taste and odour production.

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 2020-21, SA Water collected 46,401 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, 99.94 per cent for country areas and 99.83 per cent for remote Aboriginal community supplies.

The total number of incidents notified by SA Water during 2020-21 was similar to 2019-20. There was an increase in the number of incidents arising from unauthorised activities at drinking water reservoir reserves, access to which was expanded and they were visited by a growing number of people. These activities did not have a measurable impact on drinking water quality. An extensive proactive flushing program initiated to improve aesthetic aspects of drinking water and remove corrosion products from ageing sections of distribution networks resulted in a greater number of reported chemical exceedances. However, these exceedances were temporary and resolved as part of the program. An audit of properties supplied by the Virginia Pipeline Scheme led to detection of a number of cross connections between drinking water and recycled water pipework. These cross-connections were detected within property boundaries. There was no evidence that recycled water had entered the public drinking water supply. Protection of the drinking water network has been increased. Incidents associated with contamination of drinking water storage tanks also increased.

There was a reduction in numbers of incidents reported due to detection of cyanobacteria and enteric protozoa in source water. Cooler summer temperatures and lower winter rainfall may have contributed to the reduction. Incidents associated with water filtration and disinfection were reduced in 2020-21 compared to 2019-20. The number of incidents arising from customer complaints about dirty water was also lower.

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 2020-21, the seventh 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 concluded that SA Water had a very strong culture of prioritising drinking water safety and was operating in compliance with the requirements and intent of the Act.

The level of compliance was improved in comparison to the six previous audits and no significant non-compliances were detected. Some opportunities for improvement were identified.

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 85 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 2020-21.

Number of sample locations and test analytes — statewide, metropolitan, country and remote Aboriginal communities water supply systems, 2020-21

Drinking water systems	Statewide	Metropolitan	Country	Remote Aboriginal communities
Supply systems	85	8	59	18
Customer tap sample locations	511	177	314	20
Catchment to tap sample locations*	1,478	365	982	131
Catchment to tap routine test analytes	357,957	83,126	264,376	10,455

** Includes customer tap sample locations*

Drinking water quality and performance

In 2020-21, 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, 2020-21

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% (10,064)	100% (3,228)	99.96 (6,732)	100% (104)
Samples compliant with ADWG health parameters*	99.96% (46,401)	100% (13,309)	99.94% (32,496)	99.83% (596)
	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 46,401 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.

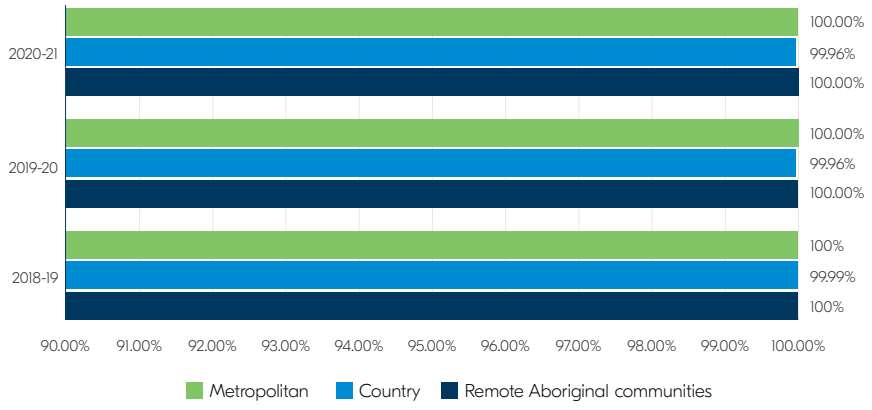
SA Health has confirmed that drinking water provided to customers by us was safe and appropriate responses and corrective actions were implemented in all cases and these mitigated any risks to public health.

A number of our surface water sources contain high amounts of natural organic matter. As a result, we continue to work towards reducing disinfection by-products that occur due to the interaction between this organic matter and chlorine used as a disinfectant. In 2020-21 we made significant improvements nearly halving the number of disinfection by-product exceedances when compared to the previous financial year. For example, the construction of a granular activated carbon plant within the Wirrina Cove system significantly reduced disinfection by-products from the water.

With a goal to further reduce disinfection by-products, as well as improve the taste and smell of the water, we are progressing with changing the treatment chemicals used to disinfect the water within the Myponga system from chlorine to chloramine. After receiving positive feedback from the Myponga township residents following this change, we completed the second stage of this project in March 2021, which has expanded the chloraminated area to include the townships of Yankalilla, Normanville and Carrickalinga.

In 2020-21 we also undertook planning, design and construction works which will see the remainder of the Myponga system receive chloraminated water in 2021-22, including the major townships of Sellicks Beach, Encounter Bay, Goolwa, Port Elliot, Victor Harbor and Hindmarsh Island.

***E. coli* compliance at metropolitan, country and remote Aboriginal communities drinking water supply system customer tap sample locations since 2018-19 (customer tap sample location tests free from *E. coli*)**



46,401
samples were collected statewide

100%
compliance achieved in metropolitan systems

Incident management

We apply 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
2020-21	1	45	57
2019-20	1	36	63
2018-19	1	24	54
2017-18*	2	42	90
2016-17#	2	48	159

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 are reportable within 24 hours, in line with the interagency Water/Wastewater Incident Notification and Communication Protocol.

The Priority Type 1 incident was due to high levels of the blue green algae *Dolichospermum circinale* at Wirrina Cove Water Treatment Plant inlet. The plant was taken offline while it was treated with algicide. During the incident, drinking water was transported from the nearby areas of Normanville, Yankalilla and Myponga to supplement the storage tank at Wirrina Cove.

In 2020-21, the number of Type 1 notifications increased and Type 2 notifications decreased compared with 2019-20. The increase in Type 1 notifications was largely attributed to an increase in recreational access-related incidents, with visitations more than doubling in 2020-21 as reservoir reserves were progressively opened for public access and activities were expanded. When taking into account the increased visitations, the incident rate per 1,000 visitors declined when compared to 2019-20, showing the overwhelming majority of visitors are doing the right thing when enjoying these spaces. These activities did not have a measurable impact on drinking water quality as considered by SA Health.

There was an increase in cross-connections between drinking water and recycled water reported due to an audit of properties supplied by the Virginia Pipeline Scheme. These occurred within property boundaries with no evidence that recycled water had entered the drinking water network. As part of the audit, these cross connections have been removed and we will continue work with SA Health and the Office of the Technical Regulator to further safeguard these systems. There was also a decrease in cyanobacteria incidents in our source waters. The reduction in Type 2 notifications is due to a significant decrease in clusters of customer complaints and enteric protozoa incidents.

In 2020-21, 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 for incident managers and operators, 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 2020-21. 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 help manage water quality incidents, including reporting, initial response and longer-term preventive measures. The overall 2020-21 strategic target for the IRI was 85 per cent compliance.

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

Incident reported to relevant agencies by phone immediately (less than one hour)	Overall strategic 2020-21 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, remote Aboriginal communities and overall for 2020-21, compared to 2019-20

System	IRI 2019-20 Target: 85%	IRI 2020-21 Target: 85%
Statewide (weighted combined metropolitan, country and remote Aboriginal communities)	98%	93%
Metropolitan	98%	99%
Country	98%	90%
Remote Aboriginal communities	100%	100%

Safe Drinking Water Act audit

In February 2021, 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 that:

- we, and our partner organisations, have a very strong culture of prioritising drinking water safety. This is embedded deeply within the organisation
- the drinking water quality management plan is mature and well implemented. As such there are no major gaps or systemic issues identified within the audit
- the risk assessment planning for recreational access was in the auditors view international best practice
- we are acting in compliance with the requirements of the Act, and that the drinking water in the schemes audited is managed in accordance with the intent of the Australian Drinking Water Guidelines.

Overall, the auditor concluded there was a very high level of compliance and the identified improvement actions and non-conformances have not impacted the provision of safe drinking water supply.

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 2020-21:

- Andrew Fletcher AO, Chair
- John Bastian AM
- Sue Filby
- Janet Finlay
- Chris Ford
- Fiona Hele
- David Ryan.

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 2020-21 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 2020-21, 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

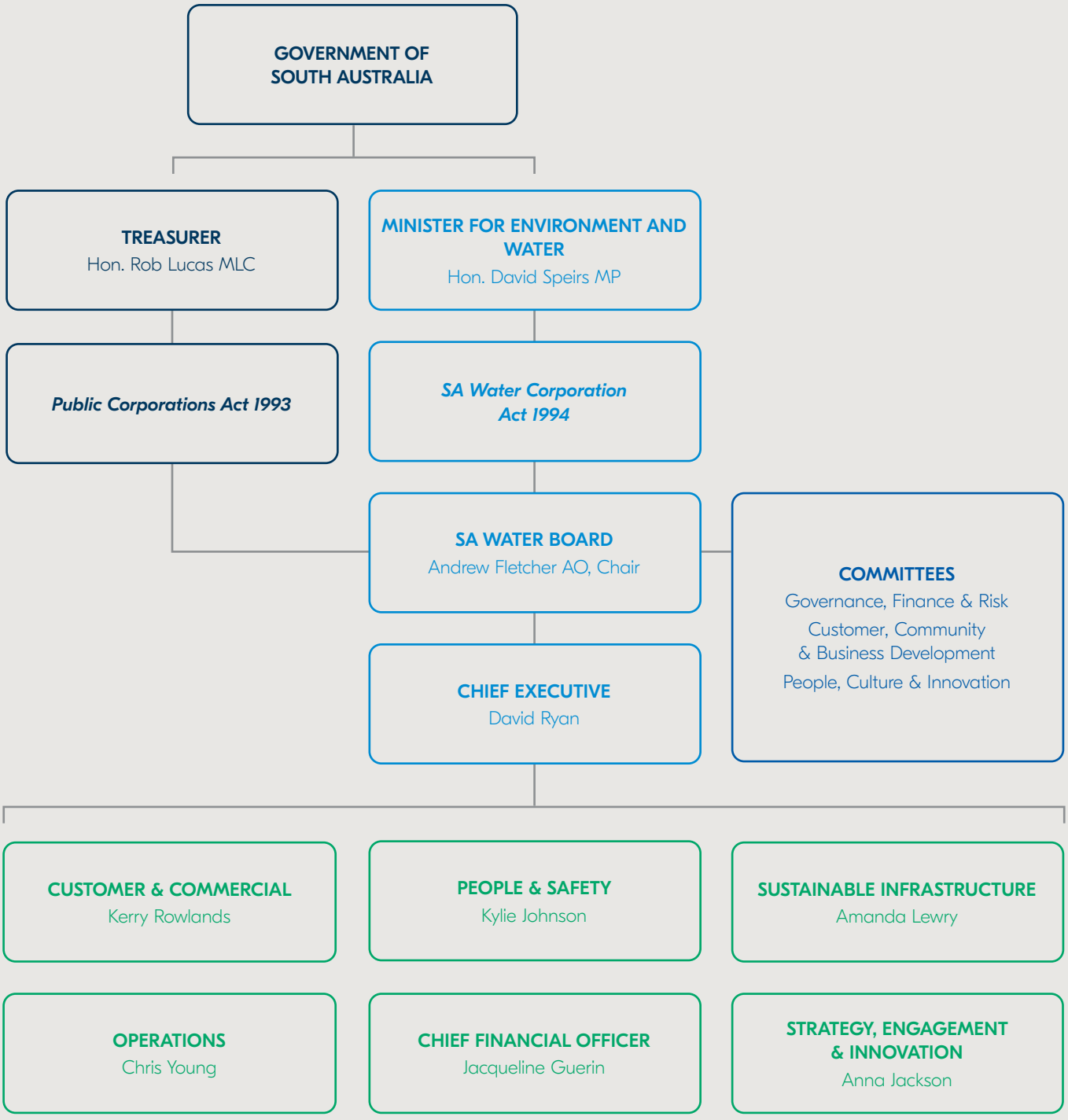
The Board has established a committee structure to assist it in meeting its responsibilities. Each committee has a charter that guides its functions and duties and is reviewed regularly.

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, legal compliance, and fraud control.

Customer, Community and Business Development Committee — assists the Board's oversight of customer and community needs, interactions and outcomes, to ensure they are aligned with business and brand strategy.

People, Culture and Innovation 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 2021



Financial performance

Financial performance summary

Our financial performance for the year was strong with a year-end profit before tax of $99.2 million which was $29.8 million higher than budget.

Revenue was $54.8 million higher than budget predominantly due to:

- strong water sales due to warm and dry weather conditions throughout the year
- significant contributed assets arising from mains extensions contributions, infrastructure assets gifted to us from developers and capital contributions to us for work we perform, as a result of increased development activities across the state
- profit on sale of surplus assets that were not required for ongoing operations.

Total expenses were $25.0 million higher than budget predominantly due to:

- production and treatment costs for higher than average water production due to warm and dry weather conditions throughout the year
- transition costs in relation to the new Adelaide Service Delivery contracts for production and treatment and field services
- site decommissioning and site remediation and restoration costs, provision for bushfire preparedness works, and retirement of replaced mains.

These increased expenses were offset by:

- reductions in interest and debt management costs due to a focus on debt management strategies to mitigate interest rate risk and minimise interest expense, including debt refinancing at favourable market interest rates
- reductions in electricity expenses through volume-managed purchases from the wholesale energy market and reductions in electricity price
- reductions in operational taxes and external fees and charges.

Amounts paid 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 $275.4 million was paid in 2020-21. This saw $72.9 million of business operating expenditure contributed to other government agencies and/or councils. Within interest expense, $94.6 million was paid to the South Australian Financing Authority as guarantee fees and margins. An income tax equivalent of $25.7 million and a dividend of $82.1 million were also paid.

Contributions to government	2020-21 actuals $'000
External fees and charges	54,013
Contract services provided	1,253
Operational taxes and tax equivalents	17,656
Total contained within operating expenses	**72,922**
As a percentage of total operating expenses	*12.1%*
Interest expense – guarantee fees*	90,388
South Australian Government Financing Authority margin fees	4,221
Additional interest paid to owner	**94,609**
Income tax equivalents	25,733
Dividends at 100% of profit after tax	82,093
Total amounts paid to government	**275,357**

* *Guarantee fees are paid to the South Australian government to remove any competitive advantage SA Water might have due to its ability to borrow under the South Australian government credit rating.*

Capital expenditure

This year, we spent $479.4 million on capital expenditure, with $25.6 million spent on information technology and $453.9 million on infrastructure.

Information technology investments continue to focus on improving outcomes for our customers and the business as well as the safety of our people, including:

- improved service channels and customer digital experience
- increased technology security and reliability (including cyber security)
- increased business efficiency and employee experience
- innovative technologies such as smart maintenance, underwater robotics and virtual reality.

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 2020-21 these included:

- Zero Cost Energy Future, with $130.3 million spent, taking the total project spend to $352.9 million of the $368.2 million project
- Happy Valley Health Compliance Upgrade Project, with $11.4 million spent towards the $21.4 million project
- Angle Vale Wastewater Network Augmentation Project, with $10.5 million spent towards the $12.7 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
Less than $10,000		
Bakjac Consulting Pty Ltd	278	Advice towards strategies and implementation of performance improvement processes.
Deloitte Touche Tohmatsu	3,000	Research paper and advice on specific accounting treatment.
VUCA	3,000	Independent review of the SA Water Board processes.
KPMG	4,959	Independent review of the major framework partnership.
Core Environmental	6,060	Independent environment advice regarding external projects.
ISC Consulting Group	6,200	Advice on State Emergency Management Council strategic action.
Between $10,000 and $50,000		
Red Wagon Workplace Solutions	11,268	Human resources advice.
Safearth	13,570	Independent assessment of the high voltage transformer switchboard at Bolivar Wastewater Treatment Plant.
KPMG	25,875	Review and advice on discounted cash flow model used for statutory reporting asset valuation purposes.
TonyMac Consulting Pty Ltd	31,997	Advice on the preparation of analysis and framework for enterprise agreement negotiations.
Ernst & Young	35,000	General accounting advice.
Baringa Partners LLP	48,000	Quarterly energy market report and energy market sensitivities analysis.
Greater than $50,000		
Ernst & Young	175,000	Review of asset creation lifecycle process with business implementation recommendations.
PricewaterhouseCoopers	250,000	Review current payroll business practices.
Total	**614,207**	

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 were two instances of potential fraud reported in 2020-21. Both matters were reported to the Independent Commissioner Against Corruption South Australia (ICAC SA). One matter was found to not be substantiated and has been closed. The remaining matter is in the process of being investigated.

Strategies implemented to control and prevent fraud

We have a zero tolerance to fraud and 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 and procedure by the Head of Governance and Integrity as designated Fraud and Corruption Control Coordinator
- regular assessment of fraud risks and risk management strategies for high-risk areas
- investigations of all allegations of fraud or corruption in accordance with our fraud and corruption procedures
- data analytic reviews conducted by an internal audit of payroll and accounts payable transactions
- communication to our people on the need to report matters of concern and to act in accordance with our 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 two public interest disclosures during 2020-21. Both matters were reported to the ICAC SA/Office for Public Integrity pursuant to the Act.

Summary of complaints

All forms of organisational feedback including complaints are seen as opportunities for us to improve our performance in delivering excellent customer experiences, as well as building customer trust and confidence and developing operational efficiencies.

We strive to capture, understand, and resolve complaints at first contact whenever possible. Our Customer Advocate team helps investigate and respond to complaints which were not able to be resolved on first contact. Additionally, we proactively look for ways to improve the feedback management processes across the business.

In 2020-21, we registered 1.99 complaints per 1,000 customers. This is a positive decrease compared with 2.05 complaints per 1,000 customers in 2019-20. We continue to track well below the national median of 4.2 for major utilities, as reported by the Bureau of Meteorology in its *National performance report 2019-20: urban water utilities*.

Together with the Water Services Association of Australia and other Australian water utilities, we are reviewing and implementing best practice guidelines to extend our ability to capture customer complaints resolved at first contact, to build valuable insights for our business and improve the overall customer experience.

The most common complaint types received in 2020-21 related to:

1. water quality
2. repairs and maintenance of infrastructure in the metropolitan area
3. costs incurred for high water consumption.

In 2020-21, the Energy and Water Ombudsman of South Australia (EWOSA) received 163* complaints about us on a range of issues, which is a minor increase from 159 in 2019-20. The highest complaint type remains costs incurred for high water use, which is consistent with complaints in 2019-20.

This year, 98 per cent of customers who had a complaint handled by our Customer Advocate team indicated they were satisfied with our complaints handling process.

Through our complaint management process, the Customer Advocate team completes root cause analyses, post complaint reviews and case studies for complaints throughout the year. Case studies include a full account of the complaint details, a summary of the case investigation, the outcomes, and any applicable process improvement recommendations.

In response to customer feedback, we continue to implement changes, and in the past year this has included:

- improved meter reading assistance cards for customers who may have difficulty reading the meter themselves
- a review of incidents where customers have experienced repeated sewer overflows to identify opportunities for improvement in business processes and customer support
- targeted information for households about how to keep sewers healthy and free from blockages in response to objects found in the wastewater network.

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

Ministerial direction

PUBLIC CORPORATIONS ACT 1993

SECTION 6

Direction to the South Australian Water Corporation

Background:

1. Pursuant to Section 6 of the *Public Corporations Act 1993*, and sections 6 and 7 (2)(f) of the *South Australian Water Corporation Act 1994* the South Australian Water Corporation (SA Water) is subject to 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 Minister Directed SA Water on 28 May 2020 over the course of the third regulatory period to 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, together with a number of other matters and projects, including to 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 retails services).
4. Following recent investigative and planning works undertaken by SA Water, there is merit in clarifying certain provisions in clause M of my Direction dated 28 May 2020 which are unique to this project.
5. The Minister intends that this Direction will revoke and replace clause M of the previous Direction made to SA Water pursuant to section 6 of the *Public Corporations Act 1993* on 28 May 2020 and published in the *Gazette* on 11 June 2020 (p. 3378). All other provisions are to remain unchanged.
6. 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 as follows:

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. facilitate the transfer of 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, which will include but not be limited to works required to be undertaken on the Properties for SA Water to provide the Services to the Properties.

For the initial works during the third regulatory period, SA Water will fund up to $64.1 million of capital expenditure progressively as it acquires, upgrades or constructs (including on the Properties) together with associated operating costs (including on the Properties) 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.

Date: 25 March 2021

DAVID SPEIRS MP
Minister for Environment and Water


Nikon

Appendices

Audited financial statements

South Australian Water Corporation annual financial statements for the year ended 30 June 2021.

INDEPENDENT AUDITOR'S REPORT

Government of South Australia
Auditor-General's Department

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To the Chair
South Australian Water Corporation

Opinion

I have audited the financial report of the South Australian Water Corporation and the consolidated entity comprising the South Australian Water Corporation and its controlled entities for the financial year ended 30 June 2021.

In my opinion, the accompanying financial report gives a true and fair view of the financial position of the South Australian Water Corporation and its controlled entities as at 30 June 2021, their financial performance and their cash flows for the year then ended in accordance with relevant Treasurer's Instructions issued under the provisions of the *Public Finance and Audit Act 1987* and Australian Accounting Standards.

The consolidated financial report comprises:

- a Statement of Comprehensive Income for the year ended 30 June 2021
- a Statement of Financial Position as at 30 June 2021
- a Statement of Changes in Equity for the year ended 30 June 2021
- a Statement of Cash Flows for the year ended 30 June 2021
- notes, comprising significant accounting policies and other explanatory information
- a Certificate from the Chair, the Chief Executive and the Chief Financial Officer.

Basis for opinion

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

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

Responsibilities of the Chief Executive for the financial report

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

In preparing the financial report, the Chief Executive is responsible for assessing the entity's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting, unless the assessment indicates that it is not appropriate.

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

Auditor's responsibilities for the audit of the financial report

As required by section 31(1)(b) of the *Public Finance and Audit Act 1987* and section 32(4) of the *Public Corporations Act 1993*, I have audited the financial report of the South Australian Water Corporation for the financial year ended 30 June 2021.

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

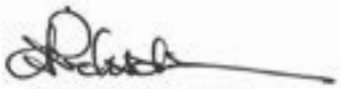
As part of an audit in accordance with Australian Auditing Standards, I exercise professional judgement and maintain professional scepticism throughout the audit. I also:

- identify and assess the risks of material misstatement of the financial report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for my opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control

- obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the South Australian Water Corporation's internal control
- evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Chief Executive
- conclude on the appropriateness of the Chief Executive's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the entity's ability to continue as a going concern. If I conclude that a material uncertainty exists, I am required to draw attention in my auditor's report to the related disclosures in the financial report or, if such disclosures are inadequate, to modify the opinion. My conclusion is based on the audit evidence obtained up to the date of the auditor's report. However, future events or conditions may cause an entity to cease to continue as a going concern
- evaluate the overall presentation, structure and content of the financial report, including the disclosures, and whether the financial report represents the underlying transactions and events in a manner that achieves fair presentation.

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

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



Andrew Richardson
Auditor-General
16 September 2021

Certification of the Financial Statements

We certify that the:

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

Jacqueline Guerin
Chief Financial Officer

David Ryan
Chief Executive

Andrew Fletcher
Chair

Date 13-9-2021

	Notes	2021 $'000	2020 $'000
Income			
Revenue from ordinary activities	4	**1,344,710**	1,605,205
Other income	5	**8,942**	736
Total income		**1,353,652**	**1,605,941**
Expenses			
Depreciation and amortisation expense	6	**(354,900)**	(362,047)
Borrowing costs	6	**(298,749)**	(317,623)
Electricity expense		**(52,392)**	(86,772)
Services and supplies	6	**(180,448)**	(147,614)
Operational and service contracts		**(205,342)**	(226,328)
Employee benefits expense	6	**(139,057)**	(140,248)
Other expenses	6	**(23,559)**	(9,636)
Total expenses		**(1,254,447)**	**(1,290,268)**
Profit before income tax equivalents		**99,205**	**315,673**
Income tax expense	7	**(25,733)**	(92,587)
Profit after income tax equivalents		**73,472**	**223,086**
Other comprehensive income			
Items that will not be reclassified to net result			
(Loss)/gain on revaluation of infrastructure, plant and equipment assets	29(a)	**439,079**	(1,162,845)
Income tax relating to items of other comprehensive income	7(c)	**(130,202)**	355,497
Other comprehensive income for the year, net of tax		**308,877**	**(807,348)**
Total comprehensive result		**382,349**	(584,262)
Total comprehensive result for the year is attributable to:			
The SA Government as owner		**382,349**	(584,262)

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

	Notes	**2021 $'000**	2020 $'000
ASSETS			
Current assets			
Cash and cash equivalents	26	**3,870**	4,844
Receivables	8	**193,889**	223,273
Inventories	9	**9,978**	8,928
Other current assets	10	**13,858**	11,456
Total current assets		**221,595**	**248,501**
Non-current assets			
Finance lease receivable		**3,579**	2,705
Deferred tax assets	11	**84,576**	75,368
Intangible assets	12	**177,074**	175,563
Infrastructure, plant and equipment	13	**13,757,095**	13,173,450
Right-of-use assets	15	**171,176**	186,866
Other non-current assets	16	**1,351**	3,615
Total non-current assets		**14,194,851**	**13,617,567**
Total assets		**14,416,446**	**13,866,068**
LIABILITIES			
Current liabilities			
Payables	17	**197,667**	167,389
Financial liabilities/borrowings	18	**45,618**	57,286
Tax liabilities	19	**6,216**	10,444
Provisions	20	**37,679**	21,064
Other current liabilities	21	**21,628**	14,837
Total current liabilities		**308,808**	**271,020**
Non-current liabilities			
Payables		**2,579**	2,558
Financial liabilities/borrowings	22	**7,167,527**	7,073,955
Deferred tax liabilities	23	**1,460,694**	1,343,275
Provisions	24	**36,247**	36,645
Other non-current liabilities	25	**334,952**	344,179
Total non-current liabilities		**9,001,999**	**8,800,612**
Total liabilities		**9,310,807**	**9,071,632**
Net assets		**5,105,639**	**4,794,436**
EQUITY			
Contributed equity		**224,319**	213,372
Asset revaluation surplus	29(a)	**4,597,921**	4,299,115
Retained earnings	29(b)	**283,399**	281,949
Total equity		**5,105,639**	**4,794,436**

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

	Notes	Contributed equity $'000	Asset revaluation surplus $'000	Retained earnings $'000	Total $'000
Balance at 1 July 2020		**213,372**	**4,299,115**	**281,949**	**4,794,436**
Deferred income tax finance lease	7(c)	-	-	44	44
Restated total equity at the beginning of the financial year		**213,372**	**4,299,115**	**281,993**	**4,794,480**
Profit for the year		-	-	73,472	73,472
Transfer to retained profits on disposal	29	-	(10,027)	-	(10,027)
Transfer from asset revaluation surplus	29	-	-	10,027	10,027
Income tax relating to components of other comprehensive income	7(c)	-	(130,246)	-	(130,246)
Gain/(loss) on revaluation on infrastructure, plant and equipment assets		-	439,079	-	439,079
Total comprehensive result for the period		**-**	**298,806**	**83,499**	**382,305**
Transactions with the SA Government in their capacity as owners:					
Contributions of equity*		10,947	-	-	10,947
Dividends provided for or paid	33	-	-	(82,093)	(82,093)
		10,947	**-**	**(82,093)**	**(71,146)**
Balance at 30 June 2021		**224,319**	**4,597,921**	**283,399**	**5,105,639**

*In 2020/21, SA Water received the following contributions of equity;
- $3.250m from the SA Government to partially fund the opening of South Australian reservoirs for recreational use.
- $2.288m to partially fund key works completed for the Kangaroo Island Desalination Plant;
- $5.409m was received to fund completion of the Angle Vale Super School Augmentation project.

In accordance with Interpretation 1038 Contributions by Owners made to Wholly-Owned Public Sector Entities, these payments have been recognised as contributed equity.

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

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

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

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

	Notes	2021 $'000	2020 $'000
Cash flows from operating activities			
Receipts from customers		**1,274,213**	1,514,872
Payments to suppliers and employees		**(636,990)**	(730,339)
Interest received		**126**	132
Receipts from community service obligations		**141,027**	165,846
Receipts from contributions		**15,538**	8,160
Receipts from government grants		**1,359**	35
Borrowing costs paid		**(298,250)**	(337,639)
Income tax equivalents paid		**(51,951)**	(102,636)
Net cash inflow from operating activities	**27**	**445,072**	**518,431**
Cash flows from investing activities			
Payments for construction and purchase of infrastructure, plant and equipment		**(439,748)**	(545,314)
Payments for intangible assets		**(25,678)**	(33,760)
Proceeds from sale of intangible assets		**1,616**	501
Proceeds from sale of infrastructure, plant and equipment		**9,885**	585
Proceeds from sale of renewable energy certificates		**-**	2,460
Net cash (outflow) from investing activities		**(453,925)**	**(575,528)**
Cash flows from financing activities			
Proceeds from borrowings		**867,800**	1,530,600
Repayment of borrowings		**(760,900)**	(1,225,800)
Proceeds from equity contributions		**10,947**	9,162
Dividends paid	33	**(82,093)**	(228,087)
Repayments of finance lease liability		**(27,875)**	(26,706)
Net cash inflow from financing activities		**7,879**	**59,169**
Net (decrease)/increase in cash and cash equivalents		**(974)**	2,072
Cash and cash equivalents at the beginning of the financial year		**4,844**	2,772
Cash and cash equivalents at end of period	**26**	**3,870**	**4,844**

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

1 Summary of significant accounting policies

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

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

(a) *Basis of preparation*

These general purpose financial statements have been prepared in accordance with relevant Australian Accounting Standards and comply with the Treasurer's Instructions and Accounting Policy Statements promulgated under provisions of the *Public Finance and Audit Act 1987*, as well as complying with and Interpretations issued by the Australian Accounting Standards Board and the *Corporations (South Australia) Act 2001*. South Australian Water Corporation is a for-profit entity for the purpose of preparing the financial statements. Where the Treasurer's Instructions are more prescriptive than the equivalent Australian Accounting Standards, SA Water has applied the Treasurer's Instructions in the application of accounting frameworks.

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

The Corporation's statement of comprehensive income, statement of financial position and statement of changes in equity have been prepared on an accrual basis and are in accordance with the historical cost convention, except for infrastructure, plant and equipment, derivative financial instruments and renewable energy certificates which are measured on a fair value basis in accordance with the valuation policy applicable.

Changes in accounting policy

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

Comparative information

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

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

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

Rounding

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

1 Summary of significant accounting policies (continued)

(b) *Taxes*

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

Income tax equivalents

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

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

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

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

Land tax and council rate equivalents

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

Goods and services tax

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

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

The net amount of GST recoverable from, or payable to, the Australian Taxation Office is included as part of receivables or payables in the statement of financial position.

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

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

The Corporation did not voluntarily change any of its accounting policies during 2020/21.

1 Summary of significant accounting policies (continued)

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

Australian accounting standards and interpretations that have recently been issued or amended but are not yet effective, have not been adopted by the Corporation for the period ending 30 June 2021.

(d) *New accounting standards and interpretations effective at 1 July 2020*

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

2 Financial risk management

(a) *Market risk*

(i) Interest rate risk exposures - financial liabilities

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

A key component of the Corporation's interest rate risk management framework is the requirement for a permissible duration range to be maintained, which reflects the average term to maturity of the Corporation's core debt portfolio. As part of a Treasury Risk Management Policy review, the permissible duration range is 2.1 - 6.5 years.

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

At 30 June 2021 it has been assumed that a reasonable possible shift in interest rates over the next reporting period could be 1% upwards and -0.75% downwards.

		Interest rate risk			
		-0.75%		+1.0%	
30 June 2021	Carrying amount $'000	Profit $'000	Equity $'000	Profit $'000	Equity $'000
Financial assets					
Cash and cash equivalents	3,870	(20)	(20)	27	27
Financial liabilities					
Short term borrowings	(29,874)	(157)	(157)	209	209
Total increase/(decrease)		**(177)**	**(177)**	**236**	**236**

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

2 Financial risk management (continued)

(a) *Market risk (continued)*

(ii) Electricity price risk exposures

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

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

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

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

At 30 June 2020 and 30 June 2021 a sensitivity analysis was not applicable as no electricity derivatives were held.

(b) *Credit risk*

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

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

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

The Corporation has no significant concentration of credit risk.

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

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

(c) *Liquidity risk*

The Corporation has in place a Treasury Risk Management Policy to provide a prudential framework for managing liquidity risk. The policy was reviewed in 2018 and approved by the Treasurer on 09 January 2019. SA Water is required to hold in cash or committed facilities appropriate capacity to meet immediate funding requirements and provide any unforeseen cash flow needs. Liquidity levels are reviewed on a daily basis.

2 Financial risk management (continued)

(c) *Liquidity risk (continued)*

Contractual maturities

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

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

At 30 June 2021	Less than 1 year $'000	Between 1 and 2 years $'000	Between 2 and 5 years $'000	Over 5 years $'000	Total contractual cash flows $'000
Non-derivatives					
Non-interest bearing liabilities*	**120,653**	**-**	**-**	**-**	**120,653**
Fixed rate borrowings	**503,705**	**663,680**	**2,902,018**	**4,332,439**	**8,401,842**
Floating rate borrowings	**29,918**	**-**	**-**	**-**	**29,918**
Unrecognised fixed rate loan commitments**	**1,617**	**2,880**	**8,642**	**117,285**	**130,424**
Lease liabilities	**22,148**	**20,886**	**43,533**	**85,822**	**172,389**
Total non-derivatives	**678,041**	**687,446**	**2,954,193**	**4,535,546**	**8,855,226**

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

**For 30 June 2021, the principal component relating to a FSL that was refinanced prior to reporting date has been excluded from the less than 1 year category, and included in the over 5 years category in which the FSL will mature.

2 Financial risk management (continued)

(c) *Liquidity risk (continued)*

	Less than 1 year	Between 1 and 2 years	Between 2 and 5 years	Over 5 years	Total contractual cash flows
	$'000	$'000	$'000	$'000	$'000
At 30 June 2020					
Non-derivatives					
Non-interest bearing liabilities*	89,722	-	-	-	89,722
Fixed rate borrowings	1,557,437	247,703	2,939,679	3,751,457	8,496,276
Floating rate borrowings	30,026	-	-	-	30,026
Lease liabilities	35,431	21,164	53,380	95,654	205,629
Total non-derivatives	**1,712,616**	**268,867**	**2,993,059**	**3,847,111**	**8,821,653**

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

2 Financial risk management (continued)

(d) *Fair value measurements*

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

(i) Fair value of financial liabilities

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

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

	2021		2020	
	Carrying amount $'000	**Fair value $'000**	Carrying amount $'000	Fair value $'000
Long term borrowings (note 22)	**7,044,000**	**7,511,570**	6,937,000	7,573,307

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

3 Accounting estimates and judgements

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

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

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

- Contributed assets (refer note 4);
- Renewable energy certificates (refer note 10);
- Configuration or customisation in a cloud computing environment (refer note12);
- Asset valuation methodology and useful lives of assets (refer note 13);
- Impairment of assets (refer note 13);
- Unbilled water sales (refer note 4);
- Provision for long service leave (refer note 24); and
- Provision for workers compensation (refer note 24).

4 Revenue from ordinary activities

	2021 $'000	2020 $'000
Revenue from contracts with customers		
Water and sewer rates and charges	**1,040,522**	1,245,913
Recoverable works	**54,472**	89,620
Fees and charges	**58,103**	46,648
Contributed assets	**46,499**	41,180
	1,199,596	**1,423,361**
Other revenue		
Community service obligations	**132,351**	169,391
Government grants	**9,896**	9,331
Rents	**2,583**	2,489
Miscellaneous	**160**	501
Interest	**32**	34
Interest - finance leases	**92**	98
	145,114	**181,844**
Total	**1,344,710**	**1,605,205**

Water and sewer rates and charges

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

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

Water usage charge

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

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

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

4 Revenue from ordinary activities (continued)

Water and sewer rates and charges (continued)

Water access charge

This is a fixed charge that is billed to customers whose properties have been provided with access to the water supply network (connected or unconnected). This is charged to customers for costs associated with building, maintaining and replacing water mains, pipes, reservoirs and other water infrastructure. Commercial customers are charged a property rate per $1000 of property value above $10 million subject to a minimum charge. Most other customers receive a fixed charge equivalent to the minimum charge. Commercial water charges are updated every year on the basis of the latest Valuer General property values.

Sewerage access charge

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

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

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

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

Community service obligations (CSOs)

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

During the 2019/20 financial year an agreement between the Commonwealth Government and the State of South Australia was formalised whereby SA Water produced water from the Adelaide Desalination Plant. The equivalent unused River Murray water allocations were then transferred from entitlements held by the State in the Murray - Darling Basin to irrigators in the Southern Murray Darling Basin under the Water for Fodder program. The project spanned the 2019/20 financial year when an initial 40GL of water was transferred, and the intent was for a further 60GL to be transferred in 2020/21. Following a review, in September 2020 the Commonwealth Government announced that there will not be a second round of the Water for Fodder Program.

The CSO revenue is recognised as the services are provided.

4 Revenue from ordinary activities (continued)

Contributed assets

Contributed assets principally arise from:

(i) Mains extensions contributions:

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

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

(ii) Gifted assets:

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

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

(iii) Miscellaneous capital contributions:

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

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

(iv) Augmentation cash contributions:

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

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

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

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

Recoverable works

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

4 Revenue from ordinary activities (continued)

Recoverable works (continued)

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

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

Fees and charges

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

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

Government grants

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

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

Disaggregation of revenue from contracts with customers

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

30 June 2021	**Water $'000**	**Wastewater $'000**	**Total $'000**
Revenue from contracts with customers			
Water and sewer rates and charges	**719,691**	**320,831**	**1,040,522**
Recoverable works	**51,524**	**2,948**	**54,472**
Fees and charges	**33,647**	**24,456**	**58,103**
Contributed assets	**19,775**	**26,724**	**46,499**
Total revenue from contracts with customers	**824,637**	**374,959**	**1,199,596**

4 Revenue from ordinary activities (continued)

Disaggregation of revenue from contracts with customers

30 June 2020	Water $'000	Wastewater $'000	Total $'000
Revenue from contracts with customers			
Water and sewer rates and charges	885,144	360,769	1,245,913
Recoverable works	87,520	2,100	89,620
Fees and charges	24,122	22,526	46,648
Contributed assets	15,806	25,374	41,180
Total revenue from contracts with customers	**1,012,592**	**410,769**	**1,423,361**

5 Other income

	2021 **$'000**	2020 $'000
Net gain on disposal of infrastructure, plant and equipment	**6,617**	166
Gain on derecognition of right-of-use asset*	**407**	-
Net gain on disposal of water allocations	**1,595**	491
Reversal of prior year infrastructure, plant and equipment revaluation decrement**	**323**	79
	8,942	**736**

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

* During the year a sublease was entered into which resulted in a gain being recognised on derecognition of that portion of the building that had been recognised as a right-of-use asset.

** Reversal of prior year revaluation decrement relates to land and buildings asset classes.

6 Expenses

	Notes	2021 $'000	2020 $'000
Depreciation and amortisation			
Infrastructure, plant and equipment	13	**311,930**	326,062
Intangible assets	12	**27,300**	19,940
Right-of-use assets	15	**15,670**	16,045
Total depreciation and amortisation		**354,900**	**362,047**
Borrowing costs			
Interest paid/payable on short term and long term borrowings		**290,647**	307,341
Interest expense on lease liabilities		**8,102**	10,282
Total borrowing costs		**298,749**	**317,623**
Services & supplies			
Consultancy costs		**614**	769
Cost of goods sold		**30,175**	30,922
External fees and charges		**53,559**	41,322
Licences		**20,769**	19,439
Materials and chemicals		**21,001**	16,784
Other services and supplies		**53,684**	38,070
Short-term leases		**646**	308
Total services & supplies		**180,448**	**147,614**
Employee benefits			
Salaries and wages		**109,682**	103,267
Long service leave		**2,205**	5,732
Annual leave		**11,785**	12,007
Workers compensation		**801**	634
Superannuation contribution		**14,584**	18,608
Total employee benefits		**139,057**	**140,248**
Other expenses			
Net bad and doubtful debts		**24**	88
Net loss on disposal of renewable energy certificates		**-**	226
Write-off in value of infrastructure, plant and capital WIP		**5,479**	8,260
Infrastructure, plant and equipment revaluation decrement		**18,021**	1,062
Net loss from electricity derivatives at fair value through P&L		**35**	-
Total other expenses		**23,559**	**9,636**
Consultancy costs			
Less than $10,000 (Number 2021: 6 ; 2020: 1)		**23**	7
Between $10,000 and $50,000 (Number 2021: 6 ; 2020: 2)		**166**	48
Greater than $50,000 (Number 2021: 2 ; 2020: 6)		**425**	714
		614	**769**

6 Expenses (continued)

Superannuation

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

Depreciation

Leased infrastructure, plant and equipment are depreciated over the term of the lease. For BOOT arrangements, as ownership of the underlying asset is transferred to the Corporation at the end of the lease term, depreciation is calculated over the useful life of the underlying asset. Owned infrastructure, plant and equipment and other assets are depreciated using the straight line method over their estimated useful lives ranging from 2 to 170 years. The useful lives of assets are reviewed annually and have been assessed as follows:

Class of assets	Useful life (years)
- Water and sewer	7 - 170 years
- Renewable energy assets	4 - 25 years
- Right-of-use infrastructure assets	20 - 50 years
- Buildings	50 years
- Other	2 - 50 years
- Plant and equipment	3 - 15 years

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

Borrowing costs

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

In accordance with the *Treasurer's Instructions (Accounting Policy Statements)* and *AASB 123 Borrowing Costs*, borrowing costs attributable to the acquisition or construction of infrastructure, plant and equipment are capitalised after considering materiality. The Corporation has not capitalised borrowing costs in the year as the proportion related to the acquisition and construction of infrastructure was assessed as not material.

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

6 Expenses (continued)

Derivatives

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

All derivatives are categorised as financial assets or financial liabilities at fair value through profit and loss and classified as economic hedges in the Statement of Financial Position as the Corporation has elected not to apply hedge accounting under AASB 9 Financial Instruments: Recognition and Measurement.

Any changes in the fair value of derivatives are recognised immediately as an adjustment to other income or other expenses in the Statement of Comprehensive Income.

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

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

Leases

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

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

6 Expenses (continued)

Leases (continued)

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

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

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

Short term and low-value leases

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

7 Income tax expense

(a) *Income tax expense*

	2021	2020
	$'000	$'000
Current tax	**46,589**	106,294
Deferred tax	**(20,856)**	(13,708)
Amounts under provided in prior years	**-**	1
	25,733	**92,587**
Deferred income tax included in income tax expense comprises:		
(Increase)/decrease in deferred tax assets (note 11)	**(8,273)**	1,286
(Decrease) in deferred tax liabilities (note 23)	**(12,583)**	(14,994)
	(20,856)	**(13,708)**

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

	2021	2020
	$'000	$'000
Profit from continuing operations before income tax expense	**99,205**	315,673
Tax at the Australian tax rate of 30.0% (2019: 30.0%)	**29,762**	94,702
Tax effect of amounts which are not deductible (taxable) in calculating taxable income:		
ADP intangible asset amortisation	**510**	510
Government grants	**(2,619)**	(2,626)
Provision for employee benefits	**(43)**	-
Gain on sale of land	**(1,877)**	-
	25,733	**92,586**
Amounts under provided in prior years	**-**	1
Income tax expense	**25,733**	**92,587**

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

	2021	2020
	$'000	$'000
(Loss)/gain on revaluation of infrastructure, plant and equipment (note 23)	130,246	(352,985)
Adjustment on initial adoption of AASB 16	-	(7,871)
Leased infrastructure assets (note 23)	(44)	5,359
	130,202	**(355,497)**

8 Current assets - Receivables

	2021 **$'000**	2020 $'000
Receivables		
Rates receivable (water and sewer)	**135,925**	165,780
Sundry debtors*	**36,674**	31,725
Allowance for doubtful debts	**(137)**	(193)
	172,462	**197,312**
Other receivables		
Finance lease receivable	**2,010**	914
Community service obligations	**19,417**	25,047
	193,889	**223,273**

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

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

(a) *Impaired trade receivables*

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

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

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

8 Current assets - Receivables (continued)

(a) *Impaired trade receivables (continued)*

Movements in the allowance for doubtful debts are as follows:

	2021 $'000	2020 $'000
Opening balance at 1 July	**193**	142
Increase in the allowance	**31**	72
Amounts written off	**(80)**	(36)
Amounts reversed	**(7)**	15
Closing balance at 30 June	**137**	**193**

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

8 Current assets - Receivables (continued)

(a) *Impaired trade receivables (continued)*

	2021	2020
	$'000	$'000
At 30 June the ageing of rates receivable is as follows:		
Not past due	**84,028**	118,270
Past due 22 - 60 days	**24,213**	18,539
Past due 91 - 120 days	**6,906**	4,046
Past due 61 - 90 days	**1,417**	5,619
Past due > 120 days	**19,361**	19,306
	135,925	**165,780**

	2021	2020
	$'000	$'000
At 30 June the ageing of sundry debtors is as follows:		
Not past due	**32,956**	28,558
Past due 31 - 60 days	**1,202**	1,922
Past due 61 - 90 days	**431**	428
Past due 91 - 120 days	**428**	38
Past due > 120 days	**1,590**	779
	36,607	**31,725**

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

8 Current assets - Receivables (continued)

(b) *Finance lease receivable*

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

	2021 $'000	2020 $'000
Undiscounted finance lease payments receivable		
Less than 1 year	**2,092**	991
Between 1 and 2 years	**2,155**	1,020
Between 2 and 5 years	**1,476**	1,772
Total undiscounted finance payments receivable	**5,723**	**3,783**
Less unearned finance income	**(134)**	(164)
Total finance lease receivables	**5,589**	**3,619**

The Corporation subleases two floors of its office building located in Adelaide CBD. One floor is subleased to the South Australian Tourism Commission. During 2020-21 another floor was subleased to the Department for Trade, Tourism and Investment. The remaining term of each of the subleases are 4 and 3 years respectively which aligns to the head lease. Consequently, the subleases are classified as a finance lease. The payments received for the subleases are allocated between a reduction in the lease receivable and interest received.

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

Operating leases

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

	2021 $'000	2020 $'000
Undiscounted operating lease payments		
Less than 1 year	**40**	385
Between 1 and 2 years	**-**	40
Total	**40**	**425**

(c) *Fair value and credit risk*

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

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

9 Current assets - Inventories

	2021 **$'000**	2020 $'000
Raw materials and stores	**9,476**	8,422
Allowance for obsolete stock	**(282)**	(254)
Work in progress	**784**	760
	9,978	**8,928**

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

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

10 Current assets - Other current assets

	2021 **$'000**	2020 $'000
Interest receivable	**4**	6
Prepayments	**12,194**	9,707
Renewable Energy Certificates*	**1,465**	1,454
Australian carbon credits	**195**	289
	13,858	**11,456**

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

11 Non-current assets - Deferred tax assets

	Notes	2021 $'000	2020 $'000
The balance comprises temporary differences attributable to:			
Doubtful debts		**2**	19
Obsolete stock		**85**	76
Infrastructure, plant and equipment		**16,688**	11,650
Pooled assets		**47**	47
Payables		**1,626**	1,547
Audit fee payable		**151**	153
Government grants		**10,761**	10,924
Employee benefits		**13,971**	14,270
Deferred lease incentives		**173**	173
Lease liability - right-of-use assets		**(5,584)**	(2,917)
Unearned customer contributions		**(641)**	(1,202)
Unearned income		**1,298**	709
Provision for asset disposal		**5,795**	972
Provision for workers compensation		**789**	467
		45,161	**36,888**
Amounts recognised directly in equity:			
Unearned customer contributions		**2,335**	2,335
Revaluation of Infrastructure, plant and equipment	29	**(405)**	(405)
Lease liability - Initial adoption of AASB 16		**36,236**	36,236
Leased infrastructure assets		**(1,061)**	(1,061)
Lease make good provision		**494**	494
Deferred lease incentives		**(173)**	(173)
Doubtful debts - Initial adoption of AASB 9		**39**	39
		82,626	**74,353**
Recognition of leases - AASB 16			
Recognition of new leases		**1,950**	1,015
		1,950	**1,015**
Total deferred tax assets		**84,576**	**75,368**

11 Non-current assets - Deferred tax assets (continued)

	2021	2020
	$'000	$'000
Movements:		
Opening balance at 1 July	**75,368**	40,131
Charged to the statement of comprehensive income	**8,273**	(1,286)
Charged to equity (note 29(a) & 29(b))	**-**	35,508
Recognition of new leases - AASB 16	**935**	1,015
Closing balance at 30 June	**84,576**	**75,368**
Deferred tax assets expected to be recovered within 12 months	**17,797**	11,500
Deferred tax assets expected to be recovered after more than 12 months	**66,779**	63,868
	84,576	**75,368**

12 Intangible assets

	Easements $'000	Prescription rights $'000	Computer software $'000	ADP intangible $'000	Purchased water rights $'000	Total $'000
Year ended 30 June 2021						
Opening net book amount	6,213	4,500	67,517	56,174	41,159	175,563
Additions	434	-	28,377	-	-	28,811
Amortisation charge	-	-	(25,599)	(1,701)	-	(27,300)
Closing net book amount	**6,647**	**4,500**	**70,295**	**54,473**	**41,159**	**177,074**
At 30 June 2021						
Cost	6,647	4,500	293,260	70,982	41,159	416,548
Accumulated amortisation	-	-	(222,965)	(16,509)	-	(239,474)
Net book amount	**6,647**	**4,500**	**70,295**	**54,473**	**41,159**	**177,074**

12 Intangible assets (continued)

	Easements $'000	Prescription rights $'000	Computer software $'000	ADP intangible $'000	Purchased water rights $'000	Total $'000
Year ended 30 June 2020						
Opening net book amount	6,213	4,500	45,857	57,874	41,159	155,603
Additions	-	-	39,900	-	-	39,900
Amortisation charge	-	-	(18,240)	(1,700)	-	(19,940)
Closing net book amount	**6,213**	**4,500**	**67,517**	**56,174**	**41,159**	**175,563**
At 30 June 2020						
Cost	6,213	4,500	264,883	70,982	41,159	387,737
Accumulated amortisation	-	-	(197,366)	(14,808)	-	(212,174)
Net book amount	**6,213**	**4,500**	**67,517**	**56,174**	**41,159**	**175,563**

12 Intangible assets (continued)

Issued water licences

The South Australian Government has issued water licences to the Corporation under the relevant Water Allocation Plan for the water resource given effect by the *Landscape South Australia Act 2019*. Some of these licences have conditions attached which restrict the use of the allocations endorsed thereon. All licences are held to underpin the water security of SA Water customers. These licenses are held by the Corporation in accordance with Department of Treasury & Finance (DTF) Accounting Policy Statement reference 138.

The Corporation holds River Murray licences to underpin the metropolitan Adelaide, associated country areas and our River Murray Country towns customers.

Rights other than those relating to the River Murray are:

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

Purchased water rights

The Corporation owns a series of tradable water rights that it has purchased from the Southern Murray Darling Basin water trading markets. The rights are perpetual and title is held by the Corporation under the relevant legislation in the jurisdiction of issue (as water access entitlements onto licences issued by the South Australian Government under the Landscape South Australia Act 2019 (SA), as water shares issued by the Victorian Government under the Water Act 1989 (VIC), and as unit shares issued by the New South Wales Government under the Water Management Act 2000 (NSW)). The allocations made to these water rights are held in South Australia or are able to be transferred into South Australia from within the Southern Murray Darling Basin, subject to statutory trading rules.

In accordance with the requirements of *Treasurer's Instructions (Accounting Policy Statements)* covering valuation of intangible assets, the water rights are valued at cost. The water rights have an indefinite useful life and as such are not subject to amortisation.

Easements

In accordance with the *Treasurer's Instructions (Accounting Policy Statements)* and *AASB 138 Intangible Assets*, easements have been classified as an intangible asset and valued at cost. Easements gifted to the Corporation are not valued.

Application software

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

12 Intangible assets (continued)

Application software (continued)

ADP intangible asset

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

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

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

Configuration or Customisation Costs in a Cloud Computing Arrangement

In April 2021, the IFRS Interpretations Committee (IFRIC) published an agenda decision for configuration and customisation costs incurred related to implementing Software as a Service (SaaS) arrangements. The Corporation is currently assessing the impact of the agenda decision on its current accounting policy, which may result in previously capitalised costs needing to be recognised as an expense.

The process to quantify the impact of the decision is ongoing. The process is ongoing due to the complexity in interpreting the decision and ensuring the interpretation is consistent with government and industry and the effort required in obtaining the underlying information from historical records covering multiple projects and assessing the nature of each of the costs. At the date of this report, the impact of the IFRIC agenda decision on the Corporation cannot be estimated with reasonable certainty. The impact of adopting the accounting policy clarification will be quantified ahead of 30 June 2022 financial reporting.

13 Non-current assets - Infrastructure, plant and equipment

	Work in progress Water & Sewerage $'000	Work in progress Renewable energy $'000	Land $'000	Renewable energy* $'000	Plant and equipment $'000	System infrastructure assets $'000	Other property, plant and equipment $'000	Total $'000
Year ended 30 June 2021								
Opening net book amount	383,990	222,331	400,375	-	23,861	12,044,408	98,485	13,173,450
Additions**	349,171	130,249	2,929	148,227	5,117	242,412	11,226	889,331
Transfers	(255,873)	(150,537)	-	-	-	-	-	(406,410)
Depreciation charge	-	-	-	(626)	(3,080)	(287,748)	(20,476)	(311,930)
Asset write-down	(5,479)	-	-	-	-	-	-	(5,479)
Disposals	-	-	(3,248)	-	-	-	-	(3,248)
Revaluation surplus/(decrement)	-	(10,205)	5,003	(7,786)	-	434,369	-	421,381
Closing net book amount	**471,809**	**191,838**	**405,059**	**139,815**	**25,898**	**12,433,441**	**89,235**	**13,757,095**
At 30 June 2021								
Cost or fair value	471,809	191,838	405,059	140,408	62,324	21,951,287	370,194	23,592,919
Accumulated depreciation	-	-	-	(593)	(36,426)	(9,517,846)	(280,959)	(9,835,824)
Net book amount	**471,809**	**191,838**	**405,059**	**139,815**	**25,898**	**12,433,441**	**89,235**	**13,757,095**

*The renewable energy asset class created in the 2020/21 financial year reflects all assets delivered as part of the Corporation's Zero- Cost Energy Future program of works.
**Additions include transfers to work in progress.

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

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

**Additions include transfers to work in progress.

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

Infrastructure, plant and equipment

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

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

	Land $'000	Renewable energy assets $'000	System infrastructure assets $'000	Other property, plant and equipment $'000	Total $'000
Revalued assets based on cost model					
Cost	**52,816**	**148,227**	**8,345,329**	**294,868**	**8,841,240**
Accumulated depreciation	**-**	**(626)**	**(2,783,753)**	**(214,659)**	**(2,999,038)**
At 30 June 2021 net carrying amount	**52,816**	**147,601**	**5,561,576**	**80,209**	**5,842,202**
Revalued assets based on cost model					
Cost	**52,816**	**-**	**8,142,249**	**283,644**	**8,478,709**
Accumulated depreciation	**-**	**-**	**(2,623,153)**	**(196,484)**	**(2,819,637)**
At 30 June 2020 net carrying amount	**52,816**	**-**	**5,519,096**	**87,160**	**5,659,072**

Acquisition

Items of infrastructure, plant and equipment are initially recorded at cost in accordance with *AASB 116 Property, Plant and Equipment*, and are depreciated as outlined above in expenses (note 6). Assets acquired under BOOT agreements are brought to account when commissioned as right-of-use assets, ownership is transferred to SA Water once the lease expires.

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

Valuations

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

The application of the income approach means the assets are valued using a discounted cash flow methodology which is based on the discounted value of the future cash flows expected to be generated from the use of SA Water's assets under the environment in which the Corporation operates as a for profit entity. Future cashflows generated from the use of these assets are considered the primary factor that a market participant would consider when pricing these assets. An independent valuer was not involved in the valuation.

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

Infrastructure, plant and equipment (continued)
Valuations (continued)

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

System infrastructure assets

Includes all the Corporations network assets, its treatment plants for both water and sewerage, storage related assets and buildings and depots. These assets deliver water, sewerage and recycled water to and from the customer through its integrated network of assets. The network of assets are assessed as an integrated network because of the interdependent nature of their operations.

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

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

The Corporation aligns its approach in determining the future cash flows with the methodology applied by the Essential Services Commission of South Australia (ESCOSA). In addition to the cash flows for regulated assets under this approach, the Corporation's fair value calculations also include estimated cash flows from non-regulated assets excluding non-regulated renewable energy assets.

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

Renewable energy assets

Includes all renewable energy assets that were delivered as part of the Corporation's zero-cost energy future program (ZCEF). The Corporation has installed solar panels and battery storage on some of its existing land and facilities, to offset its electricity needs and reduce operating costs. Any excess electricity is sold back to the wholesale energy market. As there is an accessible active market for the sale of this electricity, these renewable energy assets have been classified as a separate cash generating unit from that of the corporation's sewerage and water cash generating unit.

The income approach has been adopted by SA Water to determine the fair value of renewable energy assets. Estimated cashflows for renewable energy assets are based on independently modelled electricity market and renewable energy certificate pricing estimates applied to the generation profiles and capacities of assets installed under the program. The revenues forecast include benefits from energy generation, renewable certificate production and savings on network charges as well as participation in market ancillary services.

Land

Land is independently valued using the market approach by the State Valuer-General. The Valuer-General uses site values of generically similar allotments to arrive at a unit rate used to assign a value to individual parcels. Rates depend on whether the site is residential, industrial or commercial.

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

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

Infrastructure, plant and equipment (continued)
Plant and equipment

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

Costs associated with this class include construction cost or purchase price, installation costs and attributable labour.

Other property, plant and equipment

Includes computing equipment, leasehold improvements and assets that do not fall into the above categories.

On initial recognition costs associated with this asset class include construction cost or purchase price, installation costs and attributable labour. These assets are subsequently revalued. Our methodology for measuring fair value is the cost approach within AASB 13 using the directors valuation to measure fair value. The Corporation assess whether the carrying value is materially consistent with fair value on an annual basis and appropriately update using indexation where required.

Work in progress

In the 2020/2021 financial year work in progress (WIP) was split out between the Corporation's water and sewer cash generating unit (CGU) and the renewable energy CGU. The CGU's include their respective capital projects that are currently under construction.

The Corporation's water and sewerage CGU WIP is recognised at fair value based on the cost approach at 30 June 2021.

Due to the long construction timeframe of the ZCEF program, fair value for the renewable energy CGU including the assets that remain in WIP, has been based on the income approach. Revaluation decrement for the renewable energy CGU has been apportioned to the ZCEF WIP assets to ensure all assets within the CGU reflect fair value.

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

Infrastructure, plant and equipment (continued)
Fair value model

A discounted cash flow model is used to determine fair value for all assets classes valued under the income approach. Determining fair value under this approach is highly dependent on the assumptions and inputs used to estimate the future cashflows.

The significant judgement and estimate of assumptions and inputs used in the Corporation's fair value model (primarily level 3 inputs) are tabled below. Each input is detailed in relation to its particular cash generating unit (CGU), and whether it relates to water and sewerage(W&S) or the renewable energy assets (ZCEF).

Input	Impact on fair value measurement	For 30 June 2021 (W&S CGU)	For 30 June 2021 (ZCEF CGU)
Discount rate	Asset value would increase as the discount rate decreases.	Nominal post-tax Weighted Average Cost of Capital (WACC) of 4.09%.	Nominal post-tax Weighted Average Cost of Capital (WACC) of 4.65%.
Perpetual growth rate	Asset value would increase as the perpetual growth rate increases.	2.50%	N/A
CPI rate	Asset value would increase as CPI increases.	2021/22 is based on annual CPI ending March 2021, reflecting the actual revenue increase. 2022/23 onwards utilises a glide path to a long term rate of 2.50%	2021/22 is based on annual CPI ending March 2021, reflecting the actual revenue increase. 2022/23 onwards utilises a glide path to a long term rate of 2.50%
Period of discounting	Asset value would increase as period of discounting increases.	5 years (with an estimate of terminal value).	29 years (with a defined future point of 2050, in line with the cash-flow period for ZCEF)
Cash inflows:			
Service and usage revenue	Asset value would increase if future revenue increases.	Estimates of future revenues were based the SA Water Regulatory Determination 2020 and expected revenue over succeeding regulatory periods.	N/A
Other non-regulated revenue	Asset value would increase if non-regulated revenue increases.	Non-regulated revenue is based on forward estimates. Investment and interest income is excluded.	Revenue is based on independently modelled electricity market and renewable energy certificate pricing estimates applied to generation profiles and capacities of respective assets.
Cash outflows:			

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

Infrastructure, plant and equipment (continued)
Fair value model (continued)

Operating expenditure	Asset value would increase as operating expenditure decreases.	Operating expenditure is based on the SA Water Regulatory Determination 2020 and estimates of non-regulated expenditure.	Operating expenditure is based on the operating estimates and maintenance profiles of the ZCEF assets.
Capital expenditure	Asset value would increase as capital expenditure decreases.	Capital expenditure based on the SA Water Regulatory Determination 2020 and estimates of non-regulated Capital expenditure.	Capital expenditure is based on final state budget forward estimates.

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

Infrastructure, plant and equipment (continued)
Fair value model (continued)

Sensitivity analysis (W&S)

(i) Discount rate	**Rate applied %**	**If higher +0.1%**	**If lower -0.1%**
Nominal post-tax rate	4.09%	4.19%	3.99%
Calculated fair value of infrastructure, plant and equipment ('$000)	$13,772,700	$12,894,500	$14,772,700
Resulting change ('$000)		($878,200)	$1,000,000

(ii) Perpetual nominal growth rate	**Rate applied %**	**If higher +0.1%**	**If lower -0.1%**
Nominal Post tax rate	2.50%	2.60%	2.40%
Calculated fair value of infrastructure. plant and equipment ('$000)	$13,772,700	$14,692,800	$12,961,400
Resulting change ('$000)		$920,000	($811,300)

(iii) Sustainable Capital Expenditure	**Value applied $**	**If higher $10.0m**	**If lower $10.0m**
Nominal post-tax value	$385.7m	$395.7m	$375.7m
Calculated fair value of infrastructure, plant and equipment ('$000)	$13,772,700	$13,373,800	$14,171,600
Resulting change ('$000)		($398,900)	$398,900

Sensitivity analysis (ZCEF)

(i) Discount rate	**Rate applied %**	**If higher +0.1%**	**If lower -0.1%**
Nominal post-tax rate	4.65%	4.75%	4.55%
Calculated fair value of renewable energy assets ('$000)	$346,000	$341,600	$350,100
Resulting change ('$000)		($4,400)	$4,100

(ii) Forecast revenue	**Valued applied $**	**If higher 10% p.a**	**If lower 10% p.a**
Nominal post-tax rate	Varying p.a.		
Calculated fair value of renewable energy assets ('$000)	$346,000	$378,600	$313,200
Resulting change ('$000)		$32,600	($32,800)

The sensitivity analysis is being carried out on those variables which have the greatest influence over the discounted cashflow model.

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

Infrastructure, plant and equipment (continued)
Impairment of assets

AASB 136 Impairment of Assets requires for-profit entities, at each reporting date, to undertake an assessment for impairment indicators for its non-current assets including infrastructure, plant and equipment. Where there is an indication of impairment, an impairment test is undertaken for a CGU and the recoverable amount is estimated. SA Water has two CGU's being the water & wastewater CGU and the renewable energy CGU. Recoverable amount is determined as the higher of fair value less cost of disposal and value-in-use.

An amount by which the asset's carrying amount exceeds the recoverable amount is recorded as an impairment loss. For revalued assets, any impairment loss is offset against the relevant asset revaluation surplus until fully extinguished with any remaining amount expensed in the statement of comprehensive income.

SA Water, in accordance with AASB 136, has sound impairment monitoring processes where management assess whether there are any "impairment Indicators" being present from external and internal sources prior to each reporting date. External and internal sources include but are not limited to market conditions, technology changes or asset obsolescence.

For the year ending 30 June 2021, SA Water has undertaken a discounted cashflow asset valuation to determine fair value using current market data to inform assumptions. There are no further indications for either the water and wastewater CGU or the renewable energy CGU that our carrying value is not reflective of fair value or would constitute an impairment indicator against the fair value measurement.

In June 2020, the outcome of the South Australian Inquiry into water prices and the SA Water Regulatory Determination 2020 were released. The impacts resulting from the pricing inquiry outcome and regulatory determination are incorporated within the fair value measurement as at 30 June 2020, with the carrying value based on fair value adjusted accordingly. As these factors were taken into consideration at 30 June 2020 as part of the asset revaluation no further impact of these outcomes were required to be accounted for under AASB 136.

14 Fair value measurements

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

- Land (note 13);
- System infrastructure assets (note 13);
- Plant and equipment (note 13);
- Other property, plant and equipment (note 13); and
- Renewable energy (note 13).

(a) *Fair value measurements*

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

(a) quoted prices (unadjusted) in active markets for identical assets or liabilities (level 1);

(b) inputs other than quoted prices included within level 1 that are observable for the asset or liability, either directly or indirectly (level 2); and

(c) inputs for the asset or liability that are not based on observable market data (unobservable inputs) (level 3).

The following table presents the Corporation's non-financial assets measured and recognised at fair value at 30 June 2021.

(i) Recognised fair value measurements

30 June 2021	Notes	**2021 $'000**	**Level 1 $'000**	**Level 2 $'000**	**Level 3 $'000**
Recurring fair value measurements					
Non- Financial Assets	13				
Land		**405,059**	**-**	**405,059**	**-**
System infrastructure assets		**12,433,441**	**-**	**-**	**12,433,441**
Renewable energy assets		**139,815**	**-**	**-**	**139,815**
Plant and equipment and other		**115,133**	**-**	**-**	**115,133**
Total non-financial assets		**13,093,448**	**-**	**405,059**	**12,688,389**
Total recurring financial and non-financial assets		**13,093,448**	**-**	**405,059**	**12,688,389**

14 Fair value measurements (continued)

(a) *Fair value measurements (continued)*

(i) Recognised fair value measurements (continued)

30 June 2020	Notes	2020 $'000	Level 1 $'000	Level 2 $'000	Level 3 $'000
Recurring fair value measurement					
Non-financial assets	13				
Land		**400,375**	**-**	**400,375**	**-**
System infrastructure assets		**12,044,408**	**-**	**-**	**12,044,408**
Plant and equipment and other		**122,343**	**-**	**-**	**122,343**
Total non-financial assets		**12,567,126**	**-**	**400,375**	**12,166,751**
Total recurring financial and non-financial assets		**12,567,126**	**-**	**400,375**	**12,166,751**

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

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

(ii) Disclosed fair values

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

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

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

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

(i) Recurring fair value measurements

The valuation techniques used to derive level 3 fair values are described in note 13.

There were no changes in the valuation techniques during the reporting period.

The amounts shown as comparatives for fair value in note 14 are disclosed according to the fair value definitions that apply or applied in each relevant reporting period. When categories of assets are revalued based on the income approach, any existing accumulated depreciation or amortisation is eliminated against the gross carrying amount of the asset and the net amount is restated to the revalued amount of the asset.

14 Fair value measurements (continued)

(b) *Valuation techniques used to derive level 3 fair values (continued)*
(ii) Non-recurring fair value measurements

SA Water has no non-recurring fair value measurements.

(iii) Valuation inputs and relationships to fair value

Refer to note 13 for information relating to unobservable inputs and valuation processes.

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

The recurring fair value measurements for those asset classes using significant unobservable inputs (level 3) is disclosed under note 13.

15 Non-current assets - Right-of-use asset

	Land $'000	Buildings $'000	Plant and equipment $'000	Infrastructure assets $'000	Total $'000
Year ended 30 June 2021					
Opening balance at 1 July 2020	**567**	**78,144**	**5,888**	**102,267**	186,866
Additions	**-**	**-**	**3,115**	**-**	3,115
Lease liability remeasurement	**-**	**-**	**-**	**(147)**	(147)
Derecognition	**-**	**(2,903)**	**-**	**-**	(2,903)
Depreciation	**(20)**	**(6,337)**	**(3,482)**	**(5,831)**	(15,670)
Disposals	**-**	**-**	**(85)**	**-**	(85)
Closing net book amount at 30 June 2021	**547**	**68,904**	**5,436**	**96,289**	**171,176**
At 30 June 2021					
Cost or fair value	**587**	**81,951**	**12,396**	**107,957**	202,891
Accumulated depreciation	**(40)**	**(13,047)**	**(6,960)**	**(11,668)**	(31,715)
Net book value	**547**	**68,904**	**5,436**	**96,289**	**171,176**

	Land $'000	Buildings $'000	Plant and equipment $'000	Infrastructure assets $'000	Total $'000
Year ended 30 June 2020					
Opening balance at 1 July 2019	**587**	**84,854**	**6,056**	**90,241**	181,738
Additions	**-**	**-**	**3,383**	**-**	3,383
Lease liability remeasurement	**-**	**-**	**-**	**17,863**	17,863
Depreciation	**(20)**	**(6,710)**	**(3,478)**	**(5,837)**	(16,045)
Disposals	**-**	**-**	**(73)**	**-**	(73)
Closing net book amount at 30 June 2020	**567**	**78,144**	**5,888**	**102,267**	**186,866**
At 30 June 2020					
Cost or fair value	**587**	**84,854**	**9,366**	**108,104**	202,911
Accumulated depreciation	**(20)**	**(6,710)**	**(3,478)**	**(5,837)**	(16,045)
Net book value	**567**	**78,144**	**5,888**	**102,267**	**186,866**

15 Non-current assets - Right-of-use asset (continued)

The Corporation has entered into a number of leases:

A Memorandum of Lease has been entered into with Adelaide Airport Limited for the use of land for the purpose of storm water capture, management and treatment. The term of the lease is 29 years with monthly rental payments which are increased annually by the higher of 4% and CPI.

A Memorandum of Administrative Arrangement has been entered into with the Department for Infrastructure and Transport for the lease of its office accommodation in Adelaide CBD and at Berri. The initial recognition of the right-of-use asset has been calculated in accordance with the transitional requirements of AASB 16. The carrying amount of the right-of use asset for the office in the CBD has been calculated at the commencement date of the lease, but discounted using the incremental borrowing rate at 1 July 2019. While the right-of-use asset for the office accommodation at Berri has been calculated as the amount equal to the remaining lease liability at 1 July 2019. The lease is paid monthly and increased annually by a fixed amount of 3%.

SA Water has motor vehicle leases with the South Australian Government Financing Authority (SAFA). Motor vehicle leases are non-cancellable, with rental payments paid monthly in arrears. Motor vehicle lease terms can range from 1 year up to 5 years and up to 10 years by exception on approval. The lease term can also range in duration from 60,000km up to 100,000km and 200,000km by exception. No contingent rental provisions exist within the lease agreements and no options exist to renew the leases at the end of their term.

At the commencement date of the lease, where the Corporation is not reasonably certain of exercising any lease extension options, the additional term/s have not been included in the measurement of the right-of-use asset and remaining lease liability.

The Corporation has previously entered into BOOT agreements for a number of infrastructure facilities. These BOOT agreements include the requirement for an ongoing availability tariff, as escalated over time by certain indices, for the term of the agreement. In accordance with AASB 16 lease payments included in the measurement of the lease liability include variable lease payments that depend on an index or a rate.

In accordance with the transitional provisions of AASB 16, the Corporation was able to recognise the fair value of BOOT leased infrastructure assets recognised at 30 June 2019 as the carrying value of the right-of-use asset at 1 July 2019. After initial recognition, the Corporation was required to adopt the application of AASB 16 to measure the remaining lease liability, which included the impact of any future escalation. This resulted in an increase in the lease liability of $17.9m and a corresponding increase in the carrying value of the right-of-use asset at 30 June 2020 (refer note 22).

At 30 June 2021 the remaining lease liability has been remeasured using the indexes applicable at this date.

16 Other non-current assets

	2021 $'000	2020 $'000
Prepayments	**1,351**	3,615

17 Current liabilities - Payables

	2021 $'000	2020 $'000
Interest payable	**61,292**	60,793
Trade creditors	**120,394**	91,984
Other creditors	**15,981**	14,612
	197,667	**167,389**

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

18 Current liabilities - Financial liabilities/borrowings

	2021 $'000	2020 $'000
Lease liabilities	**15,744**	27,312
Short term borrowings	**29,874**	29,974
	45,618	**57,286**

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

(a) *Risk exposures*

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

(b) *Fair value disclosures*

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

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

19 Current liabilities - Tax liabilities

	2021 **$'000**	2020 $'000
Provision for current income tax movements during the year were as follows:		
Opening balance at 1 July	**10,444**	6,785
Income tax paid	**(51,951)**	(102,636)
Current year's income tax provision	**46,589**	106,294
Amounts under provided in prior years	**1,134**	1
	6,216	**10,444**

20 Current liabilities - Provisions

	2021 $'000	2020 $'000
Employee benefits	**18,085**	17,377
Asset disposal	**16,174**	1,340
Damages and claims	**397**	401
Workers compensation	**3,023**	1,946
	37,679	**21,064**

(a) *Movements in provisions*

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

2021 Current	Asset disposal $'000	Damages and claims $'000	Workers compensation $'000	Total $'000
Opening balance at 1 July	1,340	401	1,946	3,687
Provisions recognised	16,274	631	1,340	18,245
Re-measurement adjustments	(3,176)	-	438	(2,738)
Payments made during year	(164)	(635)	(701)	(1,500)
Transfer from non-current provisions	1,900	-	-	1,900
Closing balance at 30 June	**16,174**	**397**	**3,023**	**19,594**

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

Employee benefits

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

Asset disposal

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

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

20 Current liabilities - Provisions (continued)

Damages and claims

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

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

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

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

Workers compensation

The Corporation is registered with ReturnToWorkSA as a government self-insurer and is responsible for the management and liability of all workers' compensation claims. The provision is for the estimated cost of ongoing payments to employees as required under current legislation. The Corporation's provision is an actuarial estimate of the outstanding liability as at 30 June 2021 provided by KPMG Actuarial Pty Ltd. SA Water is committed to early intervention and supportive of early return to work programs for our people.

21 Current liabilities - Other current liabilities

	2021 $'000	2020 $'000
Government grants	**10,301**	9,566
Unearned income*	**3,298**	214
Deposits from customers	**2,385**	1,281
Contract liabilities	**5,644**	3,776
	21,628	**14,837**

*Adelaide Desalination Plant CSO funding received in advance under the Water for Fodder program was reclassified from other current liabilities to other non-current liabilities in the 2019/20 financial year

22 Non-current liabilities - Financial liabilities/borrowings

	2021 $'000	2020 $'000
Lease liabilities	**123,527**	136,955
Long term borrowings	**7,044,000**	6,937,000
	7,167,527	**7,073,955**

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

SA Water's debt portfolio is managed in line with the requirements outlined in the Treasury Risk Management Policy. The policy is approved by the State Treasurer and the SA Water Board. SA Water's Treasury Risk Management Committee (TRMC) is responsible for the management of the debt portfolio within the requirements of this policy. Under a Client Service Agreement between SAFA and SA Water, SAFA is a member of this Committee and executes debt transactions on behalf of SA Water.

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

The movements in the lease liability (current and non-current) relating to the right-of-use asset are set out below:

30 June 2021	Land $'000	Buildings $'000	Plant and equipment $'000	Infrastructure assets $'000	Total $'000
Opening balance at 1 July 2020	**588**	**107,926**	**5,931**	**49,822**	164,267
Interest expense	**21**	**3,561**	**89**	**4,431**	8,102
Additions	**-**	**-**	**3,115**	**-**	3,115
Remeasurement	**-**	**-**	**-**	**(147)**	(147)
Write off on disposal	**-**	**-**	**(89)**	**-**	(89)
Lease payments	**(20)**	**(8,891)**	**(3,563)**	**(23,503)**	(35,977)
Closing net book amount at 30 June 2021	**589**	**102,596**	**5,483**	**30,603**	**139,271**

30 June 2020	$'000	$'000	$'000	$'000	Total $'000
Opening balance at 1 July 2019	**585**	**114,143**	**6,056**	**49,021**	169,805
Interest expense	**21**	**3,727**	**148**	**6,386**	10,282
Additions	**-**	**-**	**3,383**	**-**	3,383
Remeasurement	**-**	**-**	**-**	**17,863**	17,863
Write off on disposal	**-**	**-**	**(79)**	**-**	(79)
Lease payments	**(18)**	**(9,944)**	**(3,577)**	**(23,448)**	(36,987)
Closing net book amount at 30 June 2020	**588**	**107,926**	**5,931**	**49,822**	**164,267**

The lease payments included in the measurement of the lease liability comprise fixed payments (including in-substance fixed payments) and variable lease payments that depend on an index or rate less any lease incentives.

23 Non-current liabilities - Deferred tax liabilities

	2021 $'000	2020 $'000
The balance comprises temporary differences attributable to:		
Prepayments	**1,691**	1,872
Lease incentive asset	**84**	84
Infrastructure, plant and equipment	**(73,631)**	(65,275)
Right-of-use asset	**(8,514)**	(3,876)
Finance lease receivable	**356**	(235)
	(80,014)	**(67,430)**
Amounts recognised directly in equity		
Revaluation of infrastructure, plant and equipment	**1,506,952**	1,376,706
Right-of-use asset - initial adoption of AASB 16	**27,449**	27,449
Finance lease receivable - initial adoption of AASB 16	**1,321**	1,321
Leased infrastructure assets	**4,254**	4,298
Lease incentive asset	**(84)**	(84)
	1,539,892	**1,409,690**
Recognition of new leases	**1,950**	1,015
Amounts over provided in prior years	**(1,134)**	-
	816	**1,015**
Total deferred tax liabilities	**1,460,694**	**1,343,275**

	2021 $'000	2020 $'000
Movements:		
Opening balance	**1,343,275**	1,677,241
Credited to the Statement of Comprehensive Income (note 7)	**(12,583)**	(14,994)
Charged to equity (note 29(a) & 29(b))	**130,202**	(319,987)
Recognition of new leases - AASB 16	**934**	1,015
Amounts over provided in prior years	**(1,134)**	-
Closing balance at 30 June	**1,460,694**	**1,343,275**
Deferred tax liabilities to be settled within 12 months	**2,294**	2,146
Deferred tax liabilities expected to be settled after more than 12 months	**1,458,400**	1,341,129
	1,460,694	**1,343,275**

24 Non-current liabilities - Provisions

	2021 $'000	2020 $'000
Employee benefits	**28,483**	30,191
Workers compensation	**2,967**	2,907
Asset disposal	**3,150**	1,900
Lease make good	**1,647**	1,647
	36,247	**36,645**

(a) *Movements in provisions*

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

2021 Non-current	**Workers compensation $'000**	**Asset disposal $'000**	**Lease make good $'000**	**Total $'000**
Opening balance at 1 July	2,907	1,900	1,647	6,454
Transfer to current provisions	-	(1,900)	-	(1,900)
Re-measurement adjustments	60	-	-	60
Additional provision recognised	-	3,150	-	3,150
Closing balance at 30 June	**2,967**	**3,150**	**1,647**	**7,764**

Employee benefits

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

The Corporation's long service leave liability for 30 June 2021 was valued by KPMG Actuarial Pty Ltd.

Lease make good

The opening balance of the lease make good provision stems from recognising leases in accordance now with AASB 16. It is the expected cost of returning the properties to their original condition.

25 Non-current liabilities - Other non-current liabilities

	2021 $'000	2020 $'000
Contract liabilities for Government grants	**333,052**	342,323
Unearned income*	**1,900**	1,856
	334,952	**344,179**

*Adelaide Desalination Plant CSO funding received in advance under the Water for Fodder program.

26 Reconciliation of cash

	2021 $'000	2020 $'000
Cash and cash equivalents as at the end of the financial year as shown in the statement of cash flows is reconciled to the items in the statement of financial position as follows:		
Cash and cash equivalents	**3,870**	4,844

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

(a) *Fair Value*

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

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

	2021 $'000	2020 $'000
Net profit for the year	**73,472**	223,086
Add/(less) non-cash items:		
Depreciation and amortisation	**354,900**	362,047
Amortisation of government grant revenue	**(9,896)**	(9,331)
Gifted assets	**(32,489)**	(32,483)
Net (gain) on disposal of infrastructure, plant and equipment	**(6,617)**	(166)
Net (gain) on disposal of temporary water allocations	**(1,616)**	(501)
Infrastructure, plant and equipment revaluation decrement reversal	**(323)**	(79)
Infrastructure, plant and equipment revaluation decrement	**18,021**	1,062
Write-off in value of infrastructure, plant and equipment and capital WIP	**5,479**	8,260
Gain on derecognition of right-of-use-assets	**(407)**	-
Net loss on disposal of renewable energy certificates	**-**	217
Change in assets and liabilities:		
Decrease in receivables	**31,791**	12,336
(Increase) in prepayments	**(223)**	(2,931)
(Increase) in inventories	**(1,051)**	(430)
Decrease/(increase) in other operating assets	**86**	(2,125)
(Increase)/decrease in deferred tax assets	**(8,273)**	1,286
Increase/(decrease) in trade creditors	**7,089**	(13,744)
(Decrease)/increase in provision for employee benefits	**(999)**	2,122
Increase in provision for workers compensation	**1,137**	892
Increase/(decrease) in other operating liabilities	**15,498**	(21,505)
Increase in government grants	**1,359**	35
Increase in other provisions	**16,080**	1,718
(Decrease) in deferred tax liabilities	**(12,583)**	(14,994)
(Decrease)/increase in income tax payable	**(5,363)**	3,659
Net cash inflow from operating activities	**445,072**	**518,431**

28 Capital risk management

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

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

The gearing ratios based on continuing operations at 30 June 2021 and 30 June 2020 were as follows:

	2021	2020
	$'000	$'000
Interest bearing borrowings (note 18, 22)	**7,213,145**	7,131,241
Less: cash and cash equivalents (note 26)	**(3,870)**	(4,844)
Net debt	**7,209,275**	7,126,397
Total assets	**14,416,446**	**13,866,068**
Gearing ratio	50.0%	51.4%

SA Water is required by the SA Government to adjust its borrowings each year prior to 30 June, to maintain a debt/asset gearing ratio of at least 45%. This commenced from the year ended 30 June 2017, and requires SA Water to make an additional return to the State Government, transacted as a specified dividend, as directed by the Treasurer, of an amount equivalent to the required incremental increase in borrowings.

There was no specified dividend to be paid for the year ended 30 June 2020 and the year ended 30 June 2021, in recognition that SA Water 's debt/asset gearing ratio was maintained above the predetermined minimum gearing target of 45%.

29 Asset revaluation surplus and retained earnings

(a) *Asset revaluation surplus*

	2021 $'000	2020 $'000
Revaluation surplus - infrastructure, plant and equipment	**4,597,921**	4,299,115
	4,597,921	**4,299,115**

Movements:

Infrastructure, plant and equipment revaluation surplus		
Opening balance at 1 July	**4,299,115**	5,111,844
Revaluation of infrastructure, plant and equipment*	**439,079**	(1,162,845)
Movements in deferred tax liability (note 23)	**(130,246)**	352,973
Transfer to retained profits on disposal	**(10,027)**	(2,869)
Movements in deferred tax assets (note 11)	**-**	12
Closing balance at 30 June	**4,597,921**	**4,299,115**

*The 2019/20 revaluation decrease (8%) is attributable to the revaluation of system infrastructure assets that includes SA Water's network assets, treatment plants for both water and wastewater, storage related assets and buildings and depots.

*The 2020/21 revaluation increase (3%) is attributable to the revaluation of system infrastructure assets that includes SA Water's network assets, treatment plants for both water and wastewater, storage related assets and buildings and depots.

(b) *Retained earnings*

Movements in retained earnings were as follows:

Opening balance at 1 July	**281,949**	307,734
Profit for the year	**73,472**	223,086
Dividends (note 33)	**(82,093)**	(228,087)
Transfers from asset revaluation surplus	**10,027**	2,869
Adjustment on initial adoption of AASB 16	**-**	(26,165)
Movement in deferred tax asset (note 11)	**-**	36,557
Movement in deferred tax liability (note 23)	**44**	(28,686)
Leased infrastructure assets (note 11 & 23)	**-**	(5,359)
Closing balance at 30 June	**283,399**	**281,949**

(c) *Nature and purpose of other asset revaluation surplus*

(i) Infrastructure plant and equipment revaluation surplus

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

30 Commitments and contingencies

(a) *Capital commitments*

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

	2021 $'000	2020 $'000
Within one year	**114,051**	158,135
Later than one year but not later than five years	**21,798**	61,067
Later than five years	**7,253**	-
	143,102	**219,202**

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

(b) *Other expenditure commitments*

	2021 $'000	2020 $'000
Future other expenditure commitments not provided for in the financial statements are committed as follows:		
Within one year	**170,249**	170,111
Later than one year but not later than five years	**522,807**	103,886
Later than five years	**622,777**	207,416
	1,315,833	**481,413**

Other expenditure commitments include commitments pursuant to contracts to:

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

(c) *Other contingencies*

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

31 Joint Operation

Jointly controlled operations

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

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

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

	2021 **$'000**	2020 $'000
Current assets		
Cash and cash equivalents	**34**	58
Receivables	**10**	31
Total current assets	**44**	**89**
Non-current assets		
Infrastructure, plant and equipment	**1,382**	1,445
Total assets	**1,426**	**1,534**
Current liabilities		
Payables	**32**	65
Total liabilities	**32**	**65**
Net assets	**1,394**	**1,469**

32 Remuneration of auditors

	2021 $'000	2020 $'000
Audit fees paid/payable:		
SA Water annual Public Finance and Audit Act audit	**486**	497
SA Water regulatory financial statements audit*	**12**	11
	498	**508**

* Pursuant to *Water Industry Guideline Number 2* and confirmation from ESCOSA, a full Audit Opinion Certificate on the Corporation's special purpose (regulatory) financial statements is not required. An 'Agreed Upon Procedures Report' has been determined to be the appropriate audit assurance to SA Water's Board and Management.

33 Dividends

	2021 $'000	2020 $'000
Dividend paid	**82,093**	228,087
	82,093	**228,087**

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

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

SA Water is required by the SA Government to adjust its borrowings each year prior to 30 June, to maintain a debt/asset gearing ratio of a minimum of 45%. This is transacted as a specified dividend.

There was no specified dividend to be paid for the year ended 30 June 2020 and the year ended 30 June 2021, in recognition that SA Water 's debt/asset gearing ratio was maintained above the predetermined minimum gearing target of 45% (refer to note 28).

34 Remuneration of employees

	Current employees 2021	**Ex-Employees 2021**	Current employees 2020	Ex-Employees 2020
The number of employees whose remuneration paid and payables falls within the following bands is:				
$154,001 - 174,000	**62**	**2**	55	3
$174,001 - 194,000	**31**	**2**	38	-
$194,001 - 214,000	**16**	**1**	9	-
$214,001 - 234,000	**5**	**2**	8	-
$234,001 - 254,000	**4**	**1**	1	-
$254,001 - 274,000	**2**	**-**	1	-
$274,001 - 294,000	**1**	**-**	2	1
$294,001 - 314,000	**1**	**1**	1	1
$314,001 - 334,000	**-**	**-**	-	1
$334,001 - 354,000	**1**	**1**	3	2
$354,001 - 374,000	**-**	**-**	-	1
$394,001 - 414,000	**2**	**2**	-	1
$414,001 - 434,000	**1**	**-**	1	1
$434,001 - 454,000	**-**	**-**	-	1
$454,001 - 474,000	**-**	**-**	1	-
$534,001 - 554,000	**1**	**-**	-	-
Total	**127**	**12**	**120**	**12**

The table includes all employees who received remuneration equal to or greater than the base executive remuneration level during the year. Remuneration of employees reflects all costs of employment including salaries and wages, payments in lieu of leave, superannuation contributions, salary sacrifice benefits and fringe benefits, and any fringe benefits tax paid or payable in respect of those benefits. The total remuneration received by these employees for the year was $27.3m (2020: $26.5m).

	2021 $'000	2020 $'000
Targeted voluntary separation packages (TVSPs)		
Amount paid during the reporting period to separated employees:		
TVSPs	**706**	1,292
Annual leave and long service leave paid to those employees	**372**	1,013
Net cost to SA Water	**1,078**	**2,305**

The number of employees who received TVSPs during the reporting period was 5 (2020: 10).

35 Remuneration of directors

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

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

	2021 Number of directors	2020 Number of directors
The number of Directors of the Corporation (excluding the Chief Executive) whose remuneration paid and payable falls within the following bands is:		
$0 - $19,999	**-**	1
$20,000 - $39,999	**1**	1
$40,000 - $59,999	**4**	4
$80,000 - $99,999	**1**	1
	6	**7**

The total remuneration paid and payable for those directors was $0.31m (2020: $0.31m) which includes superannuation contributions.

36 Related party disclosures

(a) *Directors*

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

Mr A.V Fletcher AO; Mr J.J Bastian AM; Ms S.M Filby; Ms J.M.H Finlay; Mr C.J Ford, Ms F.A Hele; and Mr D.A Ryan.

Mr Fletcher is currently a non-executive director of Justin Pty Ltd and associated companies, director/shareholder of Andrew Fletcher and Associates Pty Ltd and associated companies, and the chair of QuantX Labs Pty Ltd (formerly Cryoclock Pty Ltd). Mr Fletcher ceased his non-executive director position with Rheinmetall Defence Australia Pty Ltd in March 2021.

Mr Bastian is currently chair of Techgrow Agriculture, syndicate chair of the CEO Institute, owner and irrigation customer of SA Water for Bastian's Block - Clare Valley Vineyard and a member of the Women's and Children's Local Health Network Board. Mr Bastian ceased his position as chair of the Spencer Gulf Ecosystem and Development Initiative in December 2020.

Ms Filby is currently a facilitator for Behind Closed Doors and a volunteer at Calvary Health Care.

Ms Finlay is currently a director of Leveque Consulting Pty Ltd and associated entities, member of the Libraries Board SA, director of St John Ambulance Australia SA Incorporated, member of the University of Adelaide Council, and commissioner of the South Australian National Football League Inc.

Ms Hele is a director and shareholder of the Sealink Travel Group, director for Celsus Securitisation Pty Ltd, board member of the Adelaide Venue Management Corporation, and director and shareholder of Hele Investments Pty Ltd.

Mr Ford is a senior executive with the SA Power Networks and Enerven.

Mr Ryan holds the position of Chief Executive and director of the corporation. He is currently a director of the Water Services Association of Australia.

36 Related party disclosures (continued)

(b) *Key management personnel*

Key management personnel compensation for the years ended 30 June 2021 and 2020 is set out below. The key management personnel are the directors of the Corporation (including the Chief Executive) and the Senior Leadership Team (SLT) who have responsibility for the strategic direction and management of the Corporation.

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

	Number of key management personnel	Short-term benefits $'000	Post-employment benefits $'000	Long-term benefits $'000	Termination benefits $'000	Total $'000
2021*	**17**	**3,218**	**250**	**75**	**66**	**3,609**
2020*	**18**	**2,889**	**223**	**-**	**-**	**3,112**

*Both 2021 and 2020 include an overlap of the senior leadership team members.

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

Drinking water quality data

Table 1

2020-21 metropolitan Adelaide source water quality (inlets to water treatment plants)

Parameter	Samples	Min	Max	Ave*	Samples	Min	Max	Ave*
		Anstey Hill WTP				Hope Valley WTP		
Colour – True (456nm) [HU]	12	5	19	12	12	9	20	14
Dissolved Organic Carbon [mg/L]	52	2.2	6.7	4.4	50	3.7	7.3	5.1
Fluoride [mg/L]	12	0.10	0.22	0.11	12	0.20	0.25	0.23
Hardness – Total [mg/L]	13	86	112	99	13	107	140	120
Nitrate as Nitrogen [mg/L]	26	<0.003	0.172	0.088	26	<0.003	0.123	0.033
pH [pH units]	12	7.0	7.6	7.4	12	7.4	8.4	8.0
Phosphorus – Total [mg/L]	26	0.016	0.098	0.034	26	0.011	0.134	0.023
Total Dissolved Solids [mg/L]	12	112	312	174	12	269	329	291
Turbidity [NTU]	12	5.6	61	25	12	0.78	2.9	1.7
		Barossa WTP				Little Para WTP		
Colour – True (456nm) [HU]	12	9	11	10	7	7	17	10
Dissolved Organic Carbon [mg/L]	52	5.3	6.9	6.1	30	3.9	5.1	4.3
Fluoride [mg/L]	12	0.29	0.36	0.33	7	0.18	0.21	0.20
Hardness – Total [mg/L]	13	83	97	88	13	77	100	91
Nitrate as Nitrogen [mg/L]	26	<0.003	0.014	0.004	26	<0.003	0.156	0.063
pH [pH units]	12	7.4	8.0	7.7	7	7.5	7.9	7.7
Phosphorus – Total [mg/L]	26	0.010	0.025	0.015	26	0.015	0.038	0.026
Total Dissolved Solids [mg/L]	12	274	308	285	7	248	258	254
Turbidity [NTU]	12	0.32	1.3	0.80	7	5.0	16	9.6
		Happy Valley WTP				Myponga WTP		
Colour – True (456nm) [HU]	12	13	50	31	12	36	66	51
Dissolved Organic Carbon [mg/L]	52	4.2	7.8	6.2	52	11.4	13.8	12.4
Fluoride [mg/L]	12	0.16	0.24	0.20	12	0.18	0.21	0.19
Hardness – Total [mg/L]	13	67	96	81	13	113	125	120
Nitrate as Nitrogen [mg/L]	26	<0.003	0.380	0.095	26	<0.003	0.121	0.035
pH [pH units]	12	7.5	8.0	7.8	12	7.2	8.1	7.7
Phosphorus – Total [mg/L]	26	0.024	0.104	0.050	26	0.027	0.185	0.053
Total Dissolved Solids [mg/L]	12	195	272	236	12	354	394	374
Turbidity [NTU]	12	5.4	22	15	12	0.99	2.9	2.1

* *Limit of reporting (LOR) values replaced with half LOR prior to calculating average.*

Table 2

2020-21 metropolitan Adelaide distribution system customer tap water quality against Australian Drinking Water Guidelines

Parameter	Health Guideline	Aesthetic Guideline	Samples	Min	Max	Ave*	% Compliance#
Anstey Hill Metro System							
Chlorine Residual – Free [mg/L]	≤ 5	-	223	<0.1	1.1	0.3	100
Chlorine Residual – Free [mg/L]	-	≤ 0.6	223	<0.1	1.1	0.3	89.7
Colour – True [HU]	-	≤ 15	4	<1	1	<1	100
E. coli [per cfu/100mL]	++	-	222	0	0	0	100
Fluoride [mg/L]	≤ 1.5	-	4	0.28	1.0	0.73	100
Hardness – Total [mg/L]	-	≤ 200	4	47	88	60	100
Iron – Total [mg/L]	-	≤ 0.3	4	0.0048	0.0160	0.0085	100
Manganese – Total [mg/L]	≤ 0.5	-	4	0.0003	0.0018	0.0007	100
Manganese – Total [mg/L]	-	≤ 0.1	4	0.0003	0.0018	0.0007	100
pH Units	-	6.5 - 8.5	12	7.0	7.6	7.4	100
Total Dissolved Solids [mg/L]	-	≤ 600	4	152	259	186	100
Trihalomethanes – Total [µg/L]	≤ 250	-	54	37	126	76	100
Turbidity [NTU]	-	≤ 5	12	<0.10	0.13	<0.10	100
Barossa Metro System							
Chlorine Residual – Free [mg/L]	≤ 5	-	99	<0.1	0.9	0.4	100
Chlorine Residual – Free [mg/L]	-	≤ 0.6	99	<0.1	0.9	0.4	80.8
Colour – True [HU]	-	≤ 15	4	<1	<1	<1	100
E. coli [per cfu/100mL]	++	-	99	0	0	0	100
Fluoride [mg/L]	≤ 1.5	-	4	0.24	0.90	0.71	100
Hardness – Total [mg/L]	-	≤ 200	4	87	113	103	100
Iron – Total [mg/L]	-	≤ 0.3	4	0.0016	0.0063	0.0034	100
Manganese – Total [mg/L]	≤ 0.5	-	4	0.0002	0.0012	0.0005	100
Manganese – Total [mg/L]	-	≤ 0.1	4	0.0002	0.0012	0.0005	100
pH Units	-	6.5 - 8.5	12	7.1	7.4	7.2	100
Total Dissolved Solids [mg/L]	-	≤ 600	4	282	327	312	100
Trihalomethanes – Total [µg/L]	≤ 250	-	42	86	136	108	100
Turbidity [NTU]	-	≤ 5	12	<0.10	0.12	<0.10	100

Table 2 — *continued*

Parameter	Health Guideline	Aesthetic Guideline	Samples	Min	Max	Ave*	% Compliance#
Central Metro System							
Chlorine Residual — Free [mg/L]	≤ 5	-	1157	<0.1	1.8	0.4	100
Chlorine Residual — Free [mg/L]	-	≤ 0.6	1157	<0.1	1.8	0.4	81.8
Colour — True [HU]	-	≤ 15	25	<1	2	<1	100
E. coli [per cfu/100mL]	++	-	1158	0	0	0	100
Fluoride [mg/L]	≤ 1.5	-	25	0.10	0.91	0.75	100
Hardness — Total [mg/L]	-	≤ 200	25	62	114	91	100
Iron — Total [mg/L]	-	≤ 0.3	25	0.0015	0.0795	0.0113	100
Manganese — Total [mg/L]	≤ 0.5	-	25	0.0001	0.0028	0.0010	100
Manganese — Total [mg/L]	-	≤ 0.1	25	0.0001	0.0028	0.0010	100
pH Units	-	6.5 - 8.5	73	7.0	7.7	7.3	100
Total Dissolved Solids [mg/L]	-	≤ 600	25	196	320	254	100
Trihalomethanes — Total [µg/L]	≤ 250	-	205	76	155	111	100
Turbidity [NTU]	-	≤ 5	73	<0.10	0.33	<0.10	100
East Metro System							
Chlorine Residual — Free [mg/L]	≤ 5	-	504	<0.1	1.3	0.2	100
Chlorine Residual — Free [mg/L]	-	≤ 0.6	504	<0.1	1.3	0.2	96.2
Colour — True [HU]	-	≤ 15	24	<1	1	<1	100
E. coli [per cfu/100mL]	++	-	504	0	0	0	100
Fluoride [mg/L]	≤ 1.5	-	24	0.22	0.93	0.80	100
Hardness — Total [mg/L]	-	≤ 200	24	47	113	81	100
Iron — Total [mg/L]	-	≤ 0.3	24	0.0020	0.0973	0.0128	100
Manganese — Total [mg/L]	≤ 0.5	-	24	0.0002	0.0116	0.0012	100
Manganese — Total [mg/L]	-	≤ 0.1	24	0.0002	0.0116	0.0012	100
pH Units	-	6.5 - 8.5	72	7.0	7.8	7.3	100
Total Dissolved Solids [mg/L]	-	≤ 600	24	136	318	232	100
Trihalomethanes — Total [µg/L]	≤ 250	-	102	34	167	105	100
Turbidity [NTU]	-	≤ 5	72	<0.10	0.78	<0.10	100

Table 2 — *continued*

Parameter	Health Guideline	Aesthetic Guideline	Samples	Min	Max	Ave*	% Compliance#
Myponga Metro System							
Chlorine Residual — Free [mg/L]	≤ 5	-	100	<0.1	0.9	0.2	100
Chlorine Residual — Free [mg/L]	-	≤ 0.6	100	<0.1	0.9	0.2	94.0
Colour — True [HU]	-	≤ 15	4	<1	2	1	100
E. coli [per cfu/100mL]	++	-	101	0	0	0	100
Fluoride [mg/L]	≤ 1.5	-	4	0.76	0.92	0.85	100
Hardness — Total [mg/L]	-	≤ 200	4	68	124	107	100
Iron — Total [mg/L]	-	≤ 0.3	4	0.0066	0.0168	0.0113	100
Manganese — Total [mg/L]	≤ 0.5	-	4	0.0004	0.0037	0.0017	100
Manganese — Total [mg/L]	-	≤ 0.1	4	0.0004	0.0037	0.0017	100
pH Units	-	6.5 - 8.5	12	7.0	7.5	7.2	100
Total Dissolved Solids [mg/L]	-	≤ 600	4	410	425	416	100
Trihalomethanes — Total [µg/L]	≤ 250	-	48	100	237	173	100
Turbidity [NTU]	-	≤ 5	12	<0.10	0.15	<0.10	100
North Metro System							
Chlorine Residual — Free [mg/L]	≤ 5	-	546	<0.1	1.1	0.4	100
Chlorine Residual — Free [mg/L]	-	≤ 0.6	546	<0.1	1.1	0.4	86.4
Colour — True [HU]	-	≤ 15	24	<1	1	<1	100
E. coli [per cfu/100mL]	++	-	546	0	0	0	100
Fluoride [mg/L]	≤ 1.5	-	24	0.23	0.93	0.70	100
Hardness — Total [mg/L]	-	≤ 200	24	51	121	91	100
Iron — Total [mg/L]	-	≤ 0.3	24	0.0019	0.0293	0.0065	100
Manganese — Total [mg/L]	≤ 0.5	-	24	0.0002	0.0130	0.0011	100
Manganese — Total [mg/L]	-	≤ 0.1	24	0.0002	0.0130	0.0011	100
pH Units	-	6.5 - 8.5	71	7.0	7.8	7.2	100
Total Dissolved Solids [mg/L]	-	≤ 600	71	156	347	301	100
Trihalomethanes — Total [µg/L]	≤ 250	-	102	48	165	100	100
Turbidity [NTU]	-	≤ 5	72	<0.10	0.45	<0.10	100

Table 2 — *continued*

Parameter	Health Guideline	Aesthetic Guideline	Samples	Min	Max	Ave*	% Compliance#
South Metro System							
Chlorine Residual — Free [mg/L]	≤ 5	-	102	<0.1	1.0	0.2	100
Chlorine Residual — Free [mg/L]	-	≤ 0.6	102	<0.1	1.0	0.2	94.1
Colour — True [HU]	-	≤ 15	4	<1	<1	<1	100
E. coli [per cfu/100mL]	++	-	102	0	0	0	100
Fluoride [mg/L]	≤ 1.5	-	4	0.75	0.90	0.84	100
Hardness — Total [mg/L]	-	≤ 200	4	79	109	96	100
Iron — Total [mg/L]	-	≤ 0.3	4	0.0035	0.0060	0.0044	100
Manganese — Total [mg/L]	≤ 0.5	-	4	<0.0001	0.0042	0.0012	100
Manganese — Total [mg/L]	-	≤ 0.1	4	<0.0001	0.0042	0.0012	100
pH Units	-	6.5 - 8.5	13	7.1	7.5	7.3	100
Total Dissolved Solids [mg/L]	-	≤ 600	4	215	292	259	100
Trihalomethanes — Total [µg/L]	≤ 250	-	38	90	152	120	100
Turbidity [NTU]	-	≤ 5	13	<0.10	0.12	<0.10	100
West Metro System							
Chlorine Residual — Free [mg/L]	≤ 5	-	657	<0.1	1.2	0.3	100
Chlorine Residual — Free [mg/L]	-	≤ 0.6	657	<0.1	1.2	0.3	90.9
Colour — True [HU]	-	≤ 15	24	<1	1	<1	100
E. coli [per cfu/100mL]	++	-	496	0	0	0	100
Fluoride [mg/L]	≤ 1.5	-	24	0.23	0.94	0.80	100
Hardness — Total [mg/L]	-	≤ 200	24	50	133	98	100
Iron — Total [mg/L]	-	≤ 0.3	24	0.0021	0.0332	0.0074	100
Manganese — Total [mg/L]	≤ 0.5	-	24	<0.0001	0.0024	0.0007	100
Manganese — Total [mg/L]	-	≤ 0.1	24	<0.0001	0.0024	0.0007	100
pH Units	-	6.5 - 8.5	71	7.0	7.7	7.3	100
Total Dissolved Solids [mg/L]	-	≤ 600	308	156	404	267	100
Trihalomethanes — Total [µg/L]	≤ 250	-	119	56	169	115	100
Turbidity [NTU]	-	≤ 5	71	<0.10	0.15	<0.10	100

Table 2 — *continued*

Parameter	Health Guideline	Aesthetic Guideline	Samples	Min	Max	Ave*	% Compliance#
Metropolitan Adelaide — Total Distribution System							
Chlorine Residual — Free [mg/L]	≤ 5	-	3388	<0.1	1.8	0.3	100
Chlorine Residual — Free [mg/L]	-	≤ 0.6	3388	<0.1	1.8	0.3	87.7
Colour — True [HU]	-	≤ 15	113	<1	2	<1	100
E. coli [per cfu/100mL]	++	-	3228	0	0	0	100
Fluoride [mg/L]	≤ 1.5	-	113	0.10	1.0	0.77	100
Hardness — Total [mg/L]	-	≤ 200	113	47	133	90	100
Iron — Total [mg/L]	-	≤ 0.3	113	0.0015	0.0973	0.0092	100
Manganese — Total [mg/L]	≤ 0.5	-	113	<0.0001	0.0130	0.0010	100
Manganese — Total [mg/L]	-	≤ 0.1	113	<0.0001	0.0130	0.0010	100
pH Units	-	6.5 - 8.5	336	7.0	7.8	7.3	100
Total Dissolved Solids [mg/L]	-	≤ 600	444	136	425	271	100
Trihalomethanes — Total [µg/L]	≤ 250	-	710	34	237	111	100
Turbidity [NTU]	-	≤ 5	337	<0.10	0.78	<0.10	100

++ *E. coli should not be detected in samples of drinking water.*
* *Limit of reporting (LOR) values replaced with half LOR prior to calculating average.*
\# *Prior to calculating compliance for health related chemicals, individual water sample test results are rounded to the same number of significant figures as the ADWG value (as prescribed in the ADWG and endorsed by SA Health).*

Table 3

2020-21 country source water quality

System	Total Dissolved Solids [mg/L]			Hardness — Total [mg/L]			Dissolved Organic Carbon [mg/L]			pH [pH Units]		
	Min	Max	Ave*	Min	Max	Ave*	Min	Max	Ave*	Min	Max	Ave*
Barmera WTP	81	146	107	-	-	-	2.8	5.0	4.0	7.1	8.4	7.7
Barossa WTP	274	308	285	83	97	88	5.3	6.9	6.1	7.4	8.0	7.7
Beachport IRP	655	689	671	276	276	276	0.9	0.9	0.9	7.3	7.5	7.4
Berri WTP	69	122	97	-	-	-	2.8	5.7	4.0	7.2	8.2	7.5
Blanchetown WTP	93	173	128	-	-	-	2.5	5.6	4.0	7.2	8.2	7.7
Bordertown	422	616	485	224	293	258	0.5	0.8	0.7	7.1	7.4	7.3
Cadell WTP	65	165	125	-	-	-	2.4	5.3	4.0	7.2	8.3	7.7
Coffin Bay	343	494	395	212	227	217	0.3	0.5	0.4	7.5	7.8	7.6
Cowirra WTP	101	183	135	-	-	-	2.6	5.0	4.0	7.1	7.9	7.5
Elliston	571	1020	721	259	342	281	0.4	1.8	0.8	7.1	7.7	7.4
Eyre South	441	1330	668	214	520	293	0.4	2.0	0.7	7.0	7.8	7.3
Geranium	1380	1520	1450	564	581	573	<0.3	0.8	0.5	6.9	7.0	7.0
Glossop WTP	69	122	97	-	-	-	2.8	5.7	4.0	7.2	8.2	7.5
Happy Valley WTP	195	272	236	67	96	81	4.2	7.8	6.2	7.5	8.0	7.8
Hawker Desalination WTP	2200	2640	2420	925	1060	993	<0.3	0.5	0.3	7.2	7.4	7.3
Kalangadoo IRP	535	560	545	341	347	344	1.1	1.2	1.2	7.1	7.4	7.3
Kanmantoo WTP	77	186	145	37	51	43	2.6	8.0	4.6	7.0	7.8	7.3
Kingston SE IRP	745	1040	876	203	248	222	0.9	1.0	0.9	7.3	7.8	7.5
Lameroo IRP	935	997	960	226	234	230	0.4	1.5	1.0	7.5	7.6	7.6
Leigh Creek WTP	1480	6190	2900	465	1580	916	0.4	1.1	0.7	7.1	7.7	7.4
Loxton WTP	74	253	109	-	-	-	2.8	5.2	4.0	7.5	8.3	7.8
Lucindale IRP	823	846	832	329	330	330	2.2	2.3	2.3	7.5	7.7	7.5
Mannum WTP	104	183	136	34	47	41	2.8	6.1	4.4	7.2	7.8	7.5
Melrose	1120	1770	1490	276	434	355	0.4	0.4	0.4	7.1	7.4	7.3
Middle River WTP	337	857	554	61	156	99	10.2	15.6	12.2	6.9	7.7	7.3
Millicent	594	672	635	355	405	380	1.1	1.4	1.3	7.5	7.5	7.5
Moorook WTP	76	138	106	-	-	-	2.7	9.6	4.4	7.2	8.6	7.7
Morgan WTP	89	180	129	32	45	39	1.7	6.8	3.6	7.2	8.7	7.8
Mt Burr	407	496	449	279	329	304	0.4	0.6	0.5	7.4	7.5	7.5
Mt Compass	108	219	166	41	76	59	<0.3	<0.3	<0.3	6.0	7.0	6.4
Mt Gambier	351	650	553	175	303	230	0.8	2.0	1.1	7.4	8.4	8.0
Mt Pleasant WTP	104	183	136	34	47	41	2.8	6.1	4.4	7.2	7.8	7.5
Murray Bridge WTP	77	186	145	37	51	43	2.6	8.0	4.6	7.0	7.8	7.3
Mypolonga WTP	106	186	140	-	-	-	2.4	5.5	4.2	7.0	8.2	7.4

Table 3 — *continued*

System	Total Dissolved Solids [mg/L]			Hardness – Total [mg/L]			Dissolved Organic Carbon [mg/L]			pH [pH Units]		
	Min	Max	Ave*	Min	Max	Ave*	Min	Max	Ave*	Min	Max	Ave*
Myponga WTP	354	394	374	113	125	120	11.4	13.8	12.4	7.2	8.1	7.7
Nangwarry	521	705	606	330	423	377	1.1	1.2	1.2	7.1	7.5	7.2
Naracoorte	1250	1320	1290	321	378	345	1.6	1.8	1.7	7.7	7.8	7.8
Padthaway	1340	1700	1590	582	592	587	0.8	0.9	0.9	7.0	7.3	7.2
Palmer WTP	104	183	136	34	47	41	2.8	6.1	4.4	7.2	7.8	7.5
Parachilna	823	846	831	319	319	319	0.4	0.4	0.4	7.6	7.8	7.7
Parilla IRP	622	666	650	184	185	185	0.4	0.4	0.4	7.6	7.7	7.6
Penneshaw WTP	37600	40400	38800	-	-	-	1.1	1.3	1.2	7.9	8.1	8.0
Penola IRP	644	678	660	316	331	324	1.3	2.6	2.0	7.4	7.5	7.4
Pinnaroo IRP	493	767	705	238	248	242	0.4	0.5	0.4	7.4	7.7	7.5
Port MacDonnell	694	711	702	19	21	20	1.1	1.2	1.2	8.2	8.4	8.3
Quorn	1080	1420	1250	464	534	508	0.7	1.1	0.8	6.9	7.4	7.2
Renmark WTP	64	120	90	24	37	31	3.2	5.9	4.4	7.2	8.2	7.6
Robe IRP	633	986	750	71	154	123	0.9	1.0	1.0	7.6	8.0	7.8
Summit WTP	77	186	145	37	51	43	2.4	5.6	4.0	7.2	8.2	7.7
Swan Reach Town WTP	99	168	130	-	-	-	2.4	4.9	4.1	7.2	8.6	7.9
Swan Reach WTP	91	172	129	28	44	39	2.8	8.2	4.5	7.3	8.7	7.8
Tailem Bend WTP	118	216	156	38	61	46	2.3	6.4	4.4	7.0	9.2	7.5
Tarpeena IRP	644	750	700	412	412	412	1.1	1.1	1.1	7.1	7.4	7.3
Waikerie WTP	87	169	117	-	-	-	2.4	5.7	4.2	7.4	8.5	7.7
Wilmington	292	356	313	95	146	121	<0.3	1.0	0.6	6.3	6.7	6.5
Wirrina Cove WTP	610	1090	794	-	-	-	16.8	22.8	20.6	7.3	8.4	7.7
Woolpunda WTP	89	160	115	-	-	-	2.7	13.4	4.3	7.1	8.4	7.7

* *Limit of reporting (LOR) values replaced with half LOR prior to calculating average.*

Table 3 — *continued*

System	Turbidity [NTU]			Colour — True (456nm) [HU]			Nitrate as Nitrogen [mg/L]			Phosphorous — Total [mg/L]		
	Min	Max	Ave*	Min	Max	Ave*	Min	Max	Ave*	Min	Max	Ave*
Barmera WTP	8.0	52	27	6	30	15	-	-	-	-	-	-
Barossa WTP	0.32	1.3	0.80	9	11	10	<0.003	0.014	0.004	0.010	0.025	0.015
Beachport IRP	2.0	4.5	3.4	<1	2	<1	<0.003	0.017	0.009	0.037	0.044	0.041
Berri WTP	10	49	28	6	38	15	-	-	-	-	-	-
Blanchetown WTP	8.2	62	27	5	24	12	-	-	-	-	-	-
Bordertown	<0.10	0.50	<0.10	<1	<1	<1	<0.003	0.536	0.148	0.008	0.014	0.011
Cadell WTP	13	82	36	5	30	13	-	-	-	-	-	-
Coffin Bay	<0.10	0.67	<0.10	<1	<1	<1	0.143	1.124	0.738	<0.005	0.010	0.007
Cowirra WTP	7.0	65	29	5	25	12	-	-	-	-	-	-
Elliston	<0.10	0.42	<0.10	<1	<1	<1	2.436	4.067	3.522	0.008	0.020	0.012
Eyre South	<0.10	2.6	0.15	<1	3	<1	0.593	5.997	3.423	<0.005	0.049	0.011
Geranium	<0.10	0.21	<0.10	<1	<1	<1	0.029	0.072	0.051	0.038	0.043	0.041
Glossop WTP	10	49	28	6	38	15	-	-	-	-	-	-
Happy Valley WTP	5.4	22	15	13	50	31	<0.003	0.380	0.095	0.024	0.104	0.050
Hawker Desalination WTP	4.8	14	11	<1	4	<1	<0.003	<0.003	<0.003	0.017	0.018	0.018
Kalangadoo IRP	1.2	5.4	3.5	<1	7	2	<0.003	<0.003	<0.003	0.019	0.026	0.023
Kanmantoo WTP	11	91	40	5	24	12	-	-	-	0.042	0.569	0.115
Kingston SE IRP	1.0	17	9.1	<1	2	<1	<0.003	0.005	<0.003	0.011	0.039	0.018
Lameroo IRP	2.4	5.8	3.8	<1	<1	<1	<0.003	<0.003	<0.003	0.052	0.058	0.055
Leigh Creek WTP	<0.10	4.0	0.40	<1	1	<1	<0.003	2.207	0.906	0.006	0.023	0.014
Loxton WTP	7.0	53	28	7	33	15	<0.003	0.079	0.014	0.038	0.099	0.064
Lucindale IRP	0.28	9.7	5.0	<1	2	1	<0.003	0.016	0.009	0.036	0.037	0.037
Mannum WTP	7.5	65	31	5	25	12	<0.003	0.128	0.018	0.042	0.429	0.104
Melrose	<0.10	0.70	0.18	<1	<1	<1	0.310	0.672	0.491	0.017	0.019	0.018
Middle River WTP	2.2	24	6.5	60	176	107	0.156	0.988	0.361	0.023	0.070	0.037
Millicent	0.20	0.79	0.33	2	4	3	<0.003	0.050	0.026	0.019	0.023	0.021
Moorook WTP	12	56	30	<1	31	14	<0.003	0.078	0.007	0.014	0.151	0.070
Morgan WTP	0.18	52	13	<1	31	7	<0.003	0.031	0.013	0.006	1.63	0.108
Mt Burr	<0.10	0.11	<0.10	<1	<1	<1	0.407	1.057	0.732	0.027	0.036	0.032
Mt Compass	<0.10	11	1.0	<1	<1	<1	0.043	0.054	0.049	0.025	0.032	0.029
Mt Gambier	<0.10	3.8	0.97	<1	3	1	<0.003	3.106	2.163	<0.005	0.039	0.017
Mt Pleasant WTP	7.5	65	31	5	25	12	<0.003	0.128	0.018	0.042	0.429	0.104
Murray Bridge WTP	11	91	40	5	24	12	-	-	-	0.042	0.569	0.115
Mypolonga WTP	8.2	65	31	6	20	12	-	-	-	-	-	-

Table 3 — *continued*

System	Turbidity [NTU]			Colour — True (456nm) [HU]			Nitrate as Nitrogen [mg/L]			Phosphorous — Total [mg/L]		
	Min	Max	Ave*	Min	Max	Ave*	Min	Max	Ave*	Min	Max	Ave*
Myponga WTP	0.99	2.9	2.1	36	66	51	<0.003	0.121	0.035	0.027	0.185	0.053
Nangwarry	<0.10	0.92	0.11	<1	<1	<1	0.880	3.918	2.399	0.016	0.016	0.016
Naracoorte	<0.10	0.52	0.34	3	4	4	<0.003	0.012	0.008	0.052	0.068	0.061
Padthaway	<0.10	2.6	0.64	<1	<1	<1	0.085	0.085	0.085	0.020	0.023	0.022
Palmer WTP	7.5	65	31	5	25	12	<0.003	0.128	0.018	0.042	0.429	0.104
Parachilna	<0.10	0.18	<0.10	<1	<1	<1	1.417	1.417	1.417	0.016	0.016	0.016
Parilla IRP	2.2	4.8	3.2	<1	2	<1	<0.003	<0.003	<0.003	0.029	0.049	0.039
Penneshaw WTP	0.14	2.6	0.59	-	-	-	-	-	-	<0.005	0.009	<0.005
Penola IRP	8.1	16	12	1	3	2	<0.003	<0.003	<0.003	0.026	0.028	0.027
Pinnaroo IRP	1.8	5.4	3.4	<1	<1	<1	<0.003	<0.003	<0.003	0.053	0.113	0.076
Port MacDonnell	<0.10	0.61	0.18	<1	9	4	0.005	0.005	0.005	0.173	0.204	0.189
Quorn	<0.10	2.0	0.35	<1	<1	<1	0.112	0.135	0.126	0.018	0.025	0.021
Renmark WTP	11	56	30	7	36	16	<0.003	0.082	0.012	0.043	0.315	0.075
Robe IRP	0.13	4.4	1.0	<1	2	<1	<0.003	0.003	<0.003	0.042	0.049	0.046
Summit WTP	5.8	66	29	5	22	12	<0.003	0.123	0.037	0.026	0.161	0.081
Swan Reach Town WTP	6.3	57	26	6	24	12	-	-	-	-	-	-
Swan Reach WTP	5.6	67	26	5	30	13	<0.003	0.023	0.006	0.034	0.209	0.097
Tailem Bend WTP	8.3	66	33	5	23	12	-	-	-	0.034	0.419	0.109
Tarpeena IRP	0.35	18	9.4	<1	2	<1	<0.003	<0.003	<0.003	0.032	0.032	0.032
Waikerie WTP	6.3	71	32	5	34	14	<0.003	0.054	0.007	0.041	0.163	0.082
Wilmington	<0.10	1.0	0.27	<1	<1	<1	0.172	0.191	0.182	0.052	0.093	0.073
Wirrina Cove WTP	2.6	12	6.8	80	204	149	-	-	-	-	-	-
Woolpunda WTP	11	50	31	6	29	14	-	-	-	-	-	-

* *Limit of reporting (LOR) values replaced with half LOR prior to calculating average.*

Table 4

2020-21 country drinking water distribution systems — customer tap water quality against Australian Drinking Water Guidelines

System	*E. coli* [per cfu/100mL]		Total Dissolved Solids [mg/L]			
	Samples	Health Compliance %	Min	Max	Ave*	Aesthetic Compliance %
ADWG value		++				**≤600**
Barmera WTP	57	100	123	171	142	100
Barossa WTP	416	100	298	359	328	100
Beachport IRP	61	100	661	672	666	0.0
Berri WTP	61	100	110	138	127	100
Blanchetown WTP	53	100	125	168	146	100
Bordertown	57	100	503	549	519	100
Cadell WTP	52	100	125	168	144	100
Coffin Bay	64	100	420	444	433	100
Cowirra WTP	57	100	141	176	163	100
Elliston	53	100	644	672	662	0.0
Eyre South	372	100	554	633	603	41.2
Eyre South / Morgan WTP	220	100	376	488	439	100
Geranium	51	100	1430	1530	1473	0.0
Glossop WTP	59	100	107	135	120	100
Happy Valley WTP	61	100	223	292	262	100
Hawker Desalination WTP	53	100	327	383	366	100
Kalangadoo IRP	63	100	547	552	550	100
Kanmantoo WTP	57	100	143	168	159	100
Kingston SE IRP	63	100	823	851	840	0.0
Lameroo IRP	51	100	963	1010	978	0.0
Leigh Creek WTP	75	100	92	133	113	100
Loxton WTP	68	100	107	154	129	100
Lucindale IRP	62	100	823	840	830	0.0
Mannum WTP	57	100	141	174	162	100
Melrose	52	100	1520	1530	1530	0.0
Middle River WTP	130	100	456	846	631	50.0
Millicent	75	100	633	638	634	0.0
Moorook WTP	56	100	110	145	121	100
Morgan / Swan Reach WTP	400	100	126	180	162	100
Morgan WTP	664	100	127	205	170	100
Mt Burr	52	100	442	453	448	100
Mt Compass	55	100	224	262	244	100

Table 4 — *continued*

System	*E. coli* [per cfu/100mL]		Total Dissolved Solids [mg/L]			
	Samples	Health Compliance %	Min	Max	Ave*	Aesthetic Compliance %
ADWG value		++				**≤600**
Mt Gambier	151	100	351	372	360	100
Mt Pleasant WTP	66	100	138	175	159	100
Murray Bridge WTP	179	100	162	188	172	100
Mypolonga WTP	61	100	139	177	156	100
Myponga WTP (Chlorinated)	212	99.5	370	489	415	100
Myponga WTP (Chloraminated)†	68	100	456	456	456	100
Nangwarry	64	100	549	633	588	75.0
Naracoorte	75	100	1280	1310	1290	0.0
Padthaway	52	100	1620	1660	1640	0.0
Palmer WTP	74	100	140	160	155	100
Parachilna	52	100	834	846	839	0.0
Parilla IRP	51	100	655	666	661	0.0
Penneshaw WTP	60	98.3	249	334	294	100
Penola IRP	64	100	644	666	658	0.0
Pinnaroo IRP	59	100	700	728	717	0.0
Port MacDonnell	61	100	700	705	703	0.0
Quorn	52	100	1170	1230	1190	0.0
Renmark WTP	183	100	101	128	119	100
Robe IRP	61	100	678	812	741	0.0
Summit WTP	408	99.8	149	348	182	100
Swan Reach Town WTP	61	100	138	156	148	100
Swan Reach WTP	365	100	135	205	166	100
Tailem Bend WTP	248	100	156	243	191	100
Tarpeena IRP	64	100	694	750	715	0.0
Waikerie WTP	57	100	120	222	155	100
Wilmington	52	100	310	347	334	100
Wirrina Cove WTP	27	100	616	1250	892	0.0
Woolpunda WTP	78	100	122	182	156	100

++ *E. coli should not be detected in samples of drinking water. While we aim for 100 per cent compliance all the time, the ADWG recognises exceedances in test results can happen occasionally. Any detection is immediately investigated and corrective action can be taken, in conjunction with SA Health.*

* *Limit of reporting (LOR) values replaced with half LOR prior to calculating average.*

† *Chloraminated sections of the Myponga WTP system including Myponga township and from March 2021 the townships of Yankalilla, Normanville and Carrickalinga.*

Table 4 — *continued*

System	Chlorine Residual — Free [mg/L]^				Chlorine Residual — Total [mg/L]†			
	Min	Max	Ave*	Health Compliance#	Min	Max	Ave*	Health Compliance#
ADWG value				≤ 5				≤ 5
Barmera WTP	0.2	2.2	0.9	100	-	-	-	-
Barossa WTP	<0.1	3.3	0.8	100	-	-	-	-
Beachport IRP	0.6	1.8	1.0	100	-	-	-	-
Berri WTP	0.4	1.6	1.0	100	-	-	-	-
Blanchetown WTP	0.2	1.2	0.7	100	-	-	-	-
Bordertown	0.2	1.7	1.0	100	-	-	-	-
Cadell WTP	0.3	1.2	0.7	100	-	-	-	-
Coffin Bay	0.7	1.4	0.9	100	-	-	-	-
Cowirra WTP	0.2	2.2	1.0	100	-	-	-	-
Elliston	0.6	1.2	0.9	100	-	-	-	-
Eyre South	0.4	2.1	1.0	100	-	-	-	-
Eyre South / Morgan WTP	0.2	2.0	1.3	100	-	-	-	-
Geranium	0.5	1.8	1.1	100	-	-	-	-
Glossop WTP	0.3	1.5	0.8	100	-	-	-	-
Happy Valley WTP	<0.1	1.6	0.5	100	-	-	-	-
Hawker Desalination WTP	0.5	1.5	1.2	100	-	-	-	-
Kalangadoo IRP	0.6	2.0	1.0	100	-	-	-	-
Kanmantoo WTP	<0.1	1.4	0.9	100	-	-	-	-
Kingston SE IRP	0.6	1.3	0.9	100	-	-	-	-
Lameroo IRP	1.0	1.8	1.4	100	-	-	-	-
Leigh Creek WTP	0.3	1.4	1.0	100	-	-	-	-
Loxton WTP	-	-	-	-	2.8	4.3	3.8	100
Lucindale IRP	0.5	1.0	0.8	100	-	-	-	-
Mannum WTP	0.2	1.6	1.0	100	-	-	-	-
Melrose	0.6	1.6	1.3	100	-	-	-	-
Middle River WTP	<0.1	1.9	0.7	100	-	-	-	-
Millicent	0.6	1.7	0.9	100	-	-	-	-
Moorook WTP	0.3	1.5	0.7	100	-	-	-	-
Morgan / Swan Reach WTP	-	-	-	-	0.1	4.5	3.0	100
Morgan WTP	-	-	-	-	<0.1	4.5	2.9	100
Mt Burr	0.7	1.8	1.0	100	-	-	-	-
Mt Compass	0.8	1.7	1.2	100	-	-	-	-

Table 4 — *continued*

System	Chlorine Residual — Free [mg/L]^				Chlorine Residual — Total [mg/L]†			
	Min	Max	Ave*	Health Compliance#	Min	Max	Ave*	Health Compliance#
ADWG value				≤ 5				≤ 5
Mt Gambier	0.6	1.9	1.1	100	-	-	-	-
Mt Pleasant WTP	<0.1	2.4	1.3	100	-	-	-	-
Murray Bridge WTP	<0.1	4.0	1.6	100	-	-	-	-
Mypolonga WTP	0.1	1.6	1.0	100	-	-	-	-
Myponga WTP	<0.1	1.3	0.3	100	0.7++	4.0++	2.6++	100
Nangwarry	0.5	1.2	0.8	100	-	-	-	-
Naracoorte	0.3	1.1	0.7	100	-	-	-	-
Padthaway	0.5	1.2	0.8	100	-	-	-	-
Palmer WTP	<0.1	1.4	0.7	100	-	-	-	-
Parachilna	0.6	1.2	0.9	100	-	-	-	-
Parilla IRP	0.5	1.9	1.1	100	-	-	-	-
Penneshaw WTP	0.7	1.4	1.0	100	-	-	-	-
Penola IRP	0.4	1.4	0.9	100	-	-	-	-
Pinnaroo IRP	0.6	1.8	1.2	100	-	-	-	-
Port MacDonnell	0.6	1.9	1.1	100	-	-	-	-
Quorn	0.4	1.8	1.2	100	-	-	-	-
Renmark WTP	<0.1	2.5	1.0	100	-	-	-	-
Robe IRP	0.6	1.2	0.9	100	-	-	-	-
Summit WTP	-	-	-	-	0.3	4.5	3.3	100
Swan Reach Town WTP	0.1	1.2	0.6	100	-	-	-	-
Swan Reach WTP	-	-	-	-	0.1	4.6	3.4	100
Tailem Bend WTP	-	-	-	-	0.5	4.4	3.1	100
Tarpeena IRP	0.5	2.0	1.1	100	-	-	-	-
Waikerie WTP	0.5	1.3	0.9	100	-	-	-	-
Wilmington	0.5	2.5	1.5	100	-	-	-	-
Wirrina Cove WTP	0.1	0.8	0.4	100	-	-	-	-
Woolpunda WTP	-	-	-	-	0.1	3.8	2.6	100

^ *Chlorinated systems only.*
† *Chloraminated systems only.*
++ *Chloraminated sections of the Myponga WTP system including Myponga township and, from March 2021, the townships of Yankalilla, Normanville and Carrickalinga.*
* *Limit of reporting (LOR) values replaced with half LOR prior to calculating average.*
# *Prior to calculating compliance for health related chemicals, individual water sample test results are rounded to the same number of significant figures as the ADWG value (as prescribed in the ADWG and endorsed by SA Health).*

Table 4 — *continued*

System	Colour – True (456nm) [HU]				Turbidity [NTU]			
	Min	Max	Ave*	Aesthetic Compliance	Min	Max	Ave*	Aesthetic Compliance
ADWG value				**≤ 15**				**≤ 5**
Barmera WTP	<1	<1	<1	100	<0.10	0.43	<0.10	100
Barossa WTP	<1	2	<1	100	<0.10	2.0	0.16	100
Beachport IRP	<1	<1	<1	100	<0.10	1.2	0.14	100
Berri WTP	<1	<1	<1	100	<0.10	0.45	<0.10	100
Blanchetown WTP	<1	<1	<1	100	0.11	0.69	0.20	100
Bordertown	<1	2	<1	100	<0.10	0.13	<0.10	100
Cadell WTP	<1	1	<1	100	0.14	0.32	0.19	100
Coffin Bay	<1	<1	<1	100	<0.10	0.11	<0.10	100
Cowirra WTP	<1	<1	<1	100	<0.10	0.10	<0.10	100
Elliston	<1	<1	<1	100	<0.10	<0.10	<0.10	100
Eyre South	<1	<1	<1	100	<0.10	0.17	<0.10	100
Eyre South / Morgan WTP	<1	<1	<1	100	<0.10	1.1	<0.10	100
Geranium	<1	<1	<1	100	<0.10	0.18	<0.10	100
Glossop WTP	<1	<1	<1	100	<0.10	0.30	<0.10	100
Happy Valley WTP	<1	<1	<1	100	<0.10	0.17	<0.10	100
Hawker Desalination WTP	<1	<1	<1	100	<0.10	0.12	<0.10	100
Kalangadoo IRP	<1	<1	<1	100	<0.10	0.59	<0.10	100
Kanmantoo WTP	<1	<1	<1	100	<0.10	0.32	0.17	100
Kingston SE IRP	<1	<1	<1	100	<0.10	0.11	<0.10	100
Lameroo IRP	<1	<1	<1	100	<0.10	0.18	<0.10	100
Leigh Creek WTP	<1	<1	<1	100	<0.10	0.54	0.10	100
Loxton WTP	<1	2	2	100	<0.10	0.25	<0.10	100
Lucindale IRP	<1	<1	<1	100	<0.10	0.46	<0.10	100
Mannum WTP	<1	<1	<1	100	<0.10	0.86	0.15	100
Melrose	<1	<1	<1	100	<0.10	<0.10	<0.10	100
Middle River WTP	<1	<1	<1	100	<0.10	4.6	0.23	100
Millicent	<1	<1	<1	100	<0.10	0.15	<0.10	100
Moorook WTP	<1	<1	<1	100	0.13	0.22	0.17	100
Morgan / Swan Reach WTP	<1	9	1	100	<0.10	3.8	0.13	100
Morgan WTP	<1	2	<1	100	<0.10	19	0.17	99.7
Mt Burr	<1	<1	<1	100	<0.10	<0.10	<0.10	100
Mt Compass	<1	<1	<1	100	<0.10	2.7	0.29	100

Table 4 — *continued*

System	Colour — True (456nm) [HU]				Turbidity [NTU]			
	Min	Max	Ave*	Aesthetic Compliance	Min	Max	Ave*	Aesthetic Compliance
ADWG value				**≤ 15**				**≤ 5**
Mt Gambier	<1	<1	<1	100	<0.10	0.24	0.12	100
Mt Pleasant WTP	<1	<1	<1	100	<0.10	0.14	<0.10	100
Murray Bridge WTP	<1	<1	<1	100	<0.10	0.59	0.12	100
Mypolonga WTP	<1	<1	<1	100	<0.10	0.62	0.10	100
Myponga WTP (Chlorinated)	<1	2	2	100	<0.10	0.47	0.14	100
Myponga WTP (Chloraminated)†	1	2	2	100	<0.10	0.26	<0.10	100
Nangwarry	<1	<1	<1	100	<0.10	0.15	<0.10	100
Naracoorte	<1	<1	<1	100	<0.10	1.6	0.27	100
Padthaway	<1	<1	<1	100	0.12	0.29	0.17	100
Palmer WTP	<1	<1	<1	100	<0.10	0.29	<0.10	100
Parachilna	<1	1	<1	100	<0.10	0.12	<0.10	100
Parilla IRP	<1	<1	<1	100	<0.10	0.11	<0.10	100
Penneshaw WTP	<1	<1	<1	100	<0.10	0.17	<0.10	100
Penola IRP	<1	<1	<1	100	<0.10	1.8	0.15	100
Pinnaroo IRP	<1	<1	<1	100	<0.10	0.12	<0.10	100
Port MacDonnell	<1	<1	<1	100	<0.10	0.33	0.15	100
Quorn	<1	<1	<1	100	<0.10	0.13	<0.10	100
Renmark WTP	<1	1	<1	100	<0.10	0.50	<0.10	100
Robe IRP	<1	<1	<1	100	<0.10	<0.10	<0.10	100
Summit WTP	<1	2	1	100	<0.10	0.62	<0.10	100
Swan Reach Town WTP	<1	1	<1	100	<0.10	0.27	0.13	100
Swan Reach WTP	<1	2	1	100	<0.10	0.54	<0.10	100
Tailem Bend WTP	<1	3	1	100	<0.10	1.1	<0.10	100
Tarpeena IRP	<1	<1	<1	100	<0.10	0.11	<0.10	100
Waikerie WTP	<1	<1	<1	100	<0.10	0.38	0.12	100
Wilmington	<1	<1	<1	100	<0.10	0.90	0.24	100
Wirrina Cove WTP	<1	1	<1	100	<0.10	0.38	0.16	100
Woolpunda WTP	<1	1	<1	100	<0.10	17	1.1	92.0

* *Limit of reporting (LOR) values replaced with half LOR prior to calculating average.*
† *Chloraminated sections of the Myponga WTP system including Myponga township and, from March 2021, the townships of Yankalilla, Normanville and Carrickalinga.*

Table 4 — *continued*

System	pH [pH Units]				Trihalomethanes — Total [µg/L]^			
	Min	Max	Ave*	Aesthetic Compliance	Min	Max	Ave*	Health Compliance#
ADWG value				**6.5 - 8.5**				**≤ 250**
Barmera WTP	7.0	7.9	7.6	100	42	89	65	100
Barossa WTP	6.8	9.0	7.5	91.1	85	252	140	100
Beachport IRP	7.6	7.9	7.7	100	36	36	36	100
Berri WTP	7.4	7.9	7.6	100	25	89	57	100
Blanchetown WTP	7.2	7.8	7.5	100	45	94	62	100
Bordertown	7.2	7.6	7.3	100	9	9	9	100
Cadell WTP	7.2	7.9	7.5	100	45	69	57	100
Coffin Bay	7.6	7.9	7.8	100	12	12	12	100
Cowirra WTP	7.5	7.8	7.6	100	46	95	79	100
Elliston	7.6	7.8	7.7	100	12	12	12	100
Eyre South	7.0	8.1	7.6	100	11	35	19	100
Eyre South / Morgan WTP	7.6	8.2	7.9	100	48	204	114	100
Geranium	6.9	7.3	7.1	100	5	5	5	100
Glossop WTP	7.6	8.1	7.9	100	40	69	51	100
Happy Valley WTP	7.0	8.4	7.7	100	144	188	165	100
Hawker Desalination WTP	7.9	8.2	8.0	100	9	9	9	100
Kalangadoo IRP	7.2	7.4	7.4	100	43	43	43	100
Kanmantoo WTP	7.4	7.8	7.6	100	53	88	74	100
Kingston SE IRP	7.4	7.7	7.6	100	39	39	39	100
Lameroo IRP	7.4	7.8	7.7	100	14	14	14	100
Leigh Creek WTP	8.4	9.2	8.8	14.7	<4	<4	<4	100
Loxton WTP†	8.2	9.1	8.8	8.3	-	-	-	-
Lucindale IRP	7.6	7.9	7.7	100	120	120	120	100
Mannum WTP	7.3	7.7	7.5	100	40	79	58	100
Melrose	7.2	7.6	7.4	100	12	12	12	100
Middle River WTP	7.0	7.8	7.4	100	10	361	117	97.3
Millicent	7.4	7.7	7.6	100	63	63	63	100
Moorook WTP	7.7	8.2	7.9	100	47	66	56	100
Morgan / Swan Reach WTP†	8.4	9.6	9.2	0.5	-	-	-	-
Morgan WTP†	7.0	9.4	8.7	22.6	49	132	89	100
Mt Burr	7.8	7.9	7.8	100	8	8	8	100
Mt Compass	7.0	7.8	7.6	100	<4	<4	<4	100

Table 4 — *continued*

System	pH [pH Units]				Trihalomethanes — Total [µg/L]^			
	Min	Max	Ave*	Aesthetic Compliance	Min	Max	Ave*	Health Compliance#
ADWG value				**6.5 - 8.5**				**≤ 250**
Mt Gambier	7.9	8.3	8.2	100	11	25	18	100
Mt Pleasant WTP	7.1	7.8	7.4	100	62	162	112	100
Murray Bridge WTP	7.0	8.0	7.6	100	51	146	102	100
Mypolonga WTP	7.1	7.9	7.6	100	72	129	106	100
Myponga WTP (Chlorinated)	7.0	7.7	7.2	100	163	283	223	84.4
Myponga WTP (Chloraminated)†‡	7.4	9.0	8.3	74.6	148	204	175	100
Nangwarry	7.4	7.8	7.5	100	20	20	20	100
Naracoorte	7.7	7.9	7.8	100	176	203	185	100
Padthaway	7.4	7.6	7.5	100	14	14	14	100
Palmer WTP	7.8	8.7	8.1	91.7	78	117	94	100
Parachilna	7.9	8.2	8.0	100	5	5	5	100
Parilla IRP	7.6	8.0	7.8	100	17	17	17	100
Penneshaw WTP	7.3	8.2	7.8	100	67	67	67	100
Penola IRP	7.3	7.6	7.5	100	62	62	62	100
Pinnaroo IRP	7.4	7.7	7.6	100	19	19	19	100
Port MacDonnell	8.0	8.2	8.1	100	76	76	76	100
Quorn	7.1	7.5	7.3	100	8	8	8	100
Renmark WTP	7.1	9.5	7.9	75.0	27	126	72	100
Robe IRP	7.7	7.9	7.8	100	49	49	49	100
Summit WTP†	7.8	9.2	8.7	19.9	-	-	-	-
Swan Reach Town WTP	7.3	7.9	7.5	100	45	72	56	100
Swan Reach WTP†	7.8	9.5	8.9	10.8	-	-	-	-
Tailem Bend WTP†	7.4	9.5	8.8	23.2	-	-	-	-
Tarpeena IRP	7.4	7.6	7.5	100	58	58	58	100
Waikerie WTP	7.3	8.0	7.6	100	45	84	65	100
Wilmington	6.6	7.6	7.1	100	25	25	25	100
Wirrina Cove WTP	7.1	7.6	7.4	100	118	281	188	91.7
Woolpunda WTP†	8.4	9.7	9.2	8.0	-	-	-	-

^ *Chlorinated systems only.*
* *Limit of reporting (LOR) values replaced with half LOR prior to calculating average.*
\# *Prior to calculating compliance for health related chemicals, individual water sample test results are rounded to the same number of significant figures as the ADWG value (as prescribed in the ADWG and endorsed by SA Health).*
† *Chloraminated systems are run at a higher pH to improve chlorine residual persistence.*
‡ *Chloraminated sections of the Myponga WTP system including Myponga township and, from March 2021, the townships of Yankalilla, Normanville and Carrickalinga.*
# *While we aim for 100 per cent health compliance all the time, the ADWG recognises exceedances in test results can happen occasionally. The ADWG states: "although concentrations of by-products should be kept as low as possible, efforts to achieve this should never jeopardise effective disinfection." An exceedance of the health guideline is immediately investigated and corrective action can be taken, in conjunction with SA Health.*

Table 4 — *continued*

System	Fluoride [mg/L]				Iron – Total [mg/L]			
	Min	Max	Ave*	Health Compliance#	Min	Max	Ave*	Aesthetic Compliance
ADWG value				**≤ 1.5**				**≤ 0.3**
Barmera WTP	0.88	0.93	0.91	100	0.0131	0.0266	0.0170	100
Barossa WTP	0.41	0.92	0.76	100	0.0031	0.0657	0.0214	100
Beachport IRP	0.20	0.24	0.23	100	<0.0005	0.0309	0.0065	100
Berri WTP	0.87	0.91	0.89	100	0.0090	0.1798	0.0491	100
Blanchetown WTP	<0.10	<0.10	<0.10	100	0.0076	0.0159	0.0128	100
Bordertown	0.30	0.33	0.32	100	0.0006	0.0080	0.0026	100
Cadell WTP	<0.10	<0.10	<0.10	100	0.0059	0.0126	0.0106	100
Coffin Bay	1.2	1.3	1.2	100	<0.0005	0.0012	<0.0005	100
Cowirra WTP	<0.10	<0.10	<0.10	100	0.0050	0.0097	0.0077	100
Elliston	0.59	0.60	0.59	100	<0.0005	0.0009	0.0005	100
Eyre South	0.40	1.2	0.49	100	<0.0005	0.0073	0.0015	100
Eyre South / Morgan WTP	0.50	0.66	0.58	100	0.0009	0.0106	0.0040	100
Geranium	0.98	1.0	0.99	100	0.0050	0.0332	0.0157	100
Glossop WTP	<0.10	<0.10	<0.10	100	0.0067	0.0388	0.0234	100
Happy Valley WTP	0.17	0.86	0.66	100	0.0071	0.0227	0.0114	100
Hawker Desalination WTP	<0.10	0.10	<0.10	100	0.0009	0.0066	0.0023	100
Kalangadoo IRP	0.12	0.12	0.12	100	0.0012	0.0155	0.0063	100
Kanmantoo WTP	<0.10	<0.10	<0.10	100	0.0011	0.0025	0.0018	100
Kingston SE IRP	0.29	0.31	0.30	100	<0.0005	0.0066	0.0027	100
Lameroo IRP	0.61	0.62	0.62	100	0.0140	0.0347	0.0188	100
Leigh Creek WTP	<0.10	<0.10	<0.10	100	0.0035	0.0168	0.0099	100
Loxton WTP	0.92	0.96	0.93	100	<0.0005	0.0031	0.0018	100
Lucindale IRP	0.28	0.33	0.31	100	0.0006	0.0255	0.0051	100
Mannum WTP	0.80	0.94	0.87	100	0.0154	0.0518	0.0334	100
Melrose	1.0	1.2	1.1	100	0.0018	0.0048	0.0032	100
Middle River WTP	<0.10	<0.10	<0.10	100	0.0070	0.0183	0.0122	100
Millicent	0.99	1.0	1.00	100	0.0091	0.0131	0.0112	100
Moorook WTP	<0.10	<0.10	<0.10	100	0.0038	0.0080	0.0057	100
Morgan / Swan Reach WTP	0.70	0.94	0.81	100	<0.0005	0.0924	0.0115	100
Morgan WTP	0.75	0.94	0.82	100	<0.0005	0.7667	0.0492	96.6
Mt Burr	0.23	0.29	0.25	100	0.0007	0.0025	0.0016	100
Mt Compass	0.23	0.29	0.26	100	0.0015	0.0196	0.0074	100

Table 4 — *continued*

System	Fluoride [mg/L]				Iron — Total [mg/L]			
	Min	Max	Ave*	Health Compliance#	Min	Max	Ave*	Aesthetic Compliance
ADWG value				**≤ 1.5**				**≤ 0.3**
Mt Gambier	0.18	0.94	0.76	100	<0.0005	0.0035	0.0007	100
Mt Pleasant WTP	0.86	0.92	0.89	100	0.0007	0.0050	0.0022	100
Murray Bridge WTP	0.81	0.94	0.89	100	0.0030	0.0188	0.0076	100
Mypolonga WTP	<0.10	<0.10	<0.10	100	0.0099	0.0455	0.0230	100
Myponga WTP (Chlorinated)	0.71	1.0	0.84	100	0.0019	0.0484	0.0201	100
Myponga WTP (Chloraminated)†	0.93	0.93	0.93	100	0.0036	0.0098	0.0063	100
Nangwarry	0.10	0.11	0.11	100	<0.0005	0.0030	0.0011	100
Naracoorte	0.88	1.2	1.1	100	0.0028	0.7040	0.0911	91.7
Padthaway	0.12	0.12	0.12	100	0.0108	0.0188	0.0162	100
Palmer WTP	<0.10	0.10	<0.10	100	0.0027	0.0052	0.0038	100
Parachilna	0.47	0.63	0.58	100	0.0009	0.0034	0.0018	100
Parilla IRP	0.41	0.48	0.45	100	0.0022	0.0336	0.0083	100
Penneshaw WTP	<0.10	<0.10	<0.10	100	0.0005	0.0027	0.0012	100
Penola IRP	0.14	0.19	0.17	100	0.0038	0.0959	0.0271	100
Pinnaroo IRP	0.68	0.70	0.69	100	0.0009	0.0260	0.0082	100
Port MacDonnell	0.68	0.80	0.75	100	0.0043	0.0069	0.0056	100
Quorn	0.59	0.61	0.60	100	<0.0005	0.0006	<0.0005	100
Renmark WTP	0.84	0.95	0.91	100	0.0008	0.0278	0.0080	100
Robe IRP	0.27	0.31	0.29	100	0.0012	0.0103	0.0033	100
Summit WTP	0.83	0.95	0.88	100	0.0008	0.0255	0.0078	100
Swan Reach Town WTP	<0.10	<0.10	<0.10	100	0.0094	0.0529	0.0321	100
Swan Reach WTP	0.81	0.96	0.91	100	0.0008	0.0124	0.0036	100
Tailem Bend WTP	0.81	0.96	0.88	100	0.0017	0.0060	0.0036	100
Tarpeena IRP	0.12	0.20	0.18	100	0.0042	0.0366	0.0128	100
Waikerie WTP	<0.10	0.92	0.67	100	0.0073	0.0193	0.0129	100
Wilmington	0.16	0.19	0.18	100	0.0195	0.0774	0.0392	100
Wirrina Cove WTP	<0.10	0.50	0.19	100	0.0102	0.0177	0.0137	100
Woolpunda WTP	<0.10	<0.10	<0.10	100	0.0036	1.246	0.3180	75.0

* *Limit of reporting (LOR) values replaced with half LOR prior to calculating average.*

\# *Prior to calculating compliance for health related chemicals, individual water sample test results are rounded to the same number of significant figures as the ADWG value (as prescribed in the ADWG and endorsed by SA Health).*

† *Chloraminated sections of the Myponga WTP system including Myponga township and, from March 2021, the townships of Yankalilla, Normanville and Carrickalinga.*

Table 4 — *continued*

System	Manganese — Total [mg/L]					Hardness — Total [mg/L]			
	Min	Max	Ave*	Health Compliance#	Aesthetic Compliance	Min	Max	Ave*	Aesthetic Compliance
ADWG value				**≤ 0.5**	**≤ 0.1**				**≤ 200**
Barmera WTP	0.0013	0.0043	0.0025	100	100	34	45	39	100
Barossa WTP	0.0003	0.0026	0.0011	100	100	93	127	108	100
Beachport IRP	0.0002	0.0028	0.0009	100	100	269	276	274	0.0
Berri WTP	0.0010	0.0043	0.0022	100	100	31	39	35	100
Blanchetown WTP	0.0006	0.0009	0.0007	100	100	34	46	41	100
Bordertown	<0.0001	<0.0001	<0.0001	100	100	266	276	271	0.0
Cadell WTP	0.0005	0.0006	0.0005	100	100	34	43	40	100
Coffin Bay	0.0001	0.0003	0.0002	100	100	216	230	224	0.0
Cowirra WTP	0.0002	0.0003	0.0002	100	100	37	47	44	100
Elliston	<0.0001	<0.0001	<0.0001	100	100	266	287	281	0.0
Eyre South	<0.0001	0.0002	<0.0001	100	100	256	308	280	0.0
Eyre South / Morgan WTP	<0.0001	0.0010	0.0003	100	100	154	221	193	66.7
Geranium	0.0001	0.0003	0.0002	100	100	509	589	557	0.0
Glossop WTP	0.0001	0.0006	0.0003	100	100	32	40	36	100
Happy Valley WTP	0.0002	0.0016	0.0008	100	100	85	113	99	100
Hawker Desalination WTP	0.0002	0.0004	0.0003	100	100	95	116	108	100
Kalangadoo IRP	<0.0001	0.0003	0.0002	100	100	350	362	357	0.0
Kanmantoo WTP	0.0003	0.0007	0.0004	100	100	37	51	45	100
Kingston SE IRP	<0.0001	0.0002	0.0002	100	100	229	248	237	0.0
Lameroo IRP	0.0009	0.0011	0.0010	100	100	228	242	233	0.0
Leigh Creek WTP	<0.0001	0.0006	0.0003	100	100	5	8	7	100
Loxton WTP	0.0005	0.0030	0.0016	100	100	28	37	35	100
Lucindale IRP	<0.0001	<0.0001	<0.0001	100	100	311	330	318	0.0
Mannum WTP	0.0030	0.0082	0.0064	100	100	36	50	44	100
Melrose	<0.0001	<0.0001	<0.0001	100	100	344	375	359	0.0
Middle River WTP	0.0017	0.0086	0.0051	100	100	69	163	107	100
Millicent	0.0005	0.0008	0.0006	100	100	375	381	378	0.0
Moorook WTP	0.0008	0.0009	0.0009	100	100	31	43	35	100
Morgan / Swan Reach WTP	0.0002	0.0072	0.0016	100	100	34	52	45	100
Morgan WTP	<0.0001	0.0117	0.0019	100	100	33	64	48	100
Mt Burr	<0.0001	<0.0001	<0.0001	100	100	297	303	299	0.0
Mt Compass	<0.0001	0.0003	0.0002	100	100	56	59	58	100

Table 4 — *continued*

System	Manganese — Total [mg/L]					Hardness — Total [mg/L]			
	Min	Max	Ave*	Health Compliance#	Aesthetic Compliance	Min	Max	Ave*	Aesthetic Compliance
ADWG value				**≤ 0.5**	**≤ 0.1**				**≤ 200**
Mt Gambier	<0.0001	0.0004	<0.0001	100	100	163	195	180	100
Mt Pleasant WTP	0.0002	0.0004	0.0004	100	100	37	45	42	100
Murray Bridge WTP	0.0014	0.0042	0.0025	100	100	43	59	51	100
Mypolonga WTP	0.0004	0.0065	0.0021	100	100	38	49	44	100
Myponga WTP (Chlorinated)	0.0007	0.0079	0.0019	100	100	115	142	123	100
Myponga WTP (Chloraminated)†	<0.0001	0.0058	0.0012	100	100	127	127	127	100
Nangwarry	<0.0001	<0.0001	<0.0001	100	100	332	387	366	0.0
Naracoorte	0.0136	0.1320	0.0438	100	80.0	324	353	344	0.0
Padthaway	0.0003	0.0005	0.0004	100	100	591	615	601	0.0
Palmer WTP	0.0002	0.0003	0.0002	100	100	42	50	46	100
Parachilna	<0.0001	0.0001	<0.0001	100	100	304	312	309	0.0
Parilla IRP	<0.0001	0.0003	0.0002	100	100	181	188	185	100
Penneshaw WTP	<0.0001	0.0008	0.0003	100	100	56	73	62	100
Penola IRP	0.0002	0.0005	0.0003	100	100	316	326	322	0.0
Pinnaroo IRP	<0.0001	0.0002	0.0001	100	100	244	253	248	0.0
Port MacDonnell	0.0005	0.0016	0.0009	100	100	20	22	21	100
Quorn	<0.0001	<0.0001	<0.0001	100	100	463	508	492	0.0
Renmark WTP	0.0008	0.0025	0.0018	100	100	28	41	35	100
Robe IRP	<0.0001	0.0001	<0.0001	100	100	108	138	128	100
Summit WTP	0.0013	0.0077	0.0036	100	100	39	58	47	100
Swan Reach Town WTP	0.0006	0.0011	0.0009	100	100	38	43	41	100
Swan Reach WTP	0.0003	0.0041	0.0018	100	100	39	52	48	100
Tailem Bend WTP	0.0004	0.0022	0.0011	100	100	38	65	53	100
Tarpeena IRP	0.0002	0.0011	0.0006	100	100	407	420	415	0.0
Waikerie WTP	0.0022	0.0077	0.0040	100	100	34	45	38	100
Wilmington	0.0003	0.0022	0.0007	100	100	111	141	128	100
Wirrina Cove WTP	0.0020	0.0111	0.0053	100	100	136	237	171	75.0
Woolpunda WTP	0.0006	0.1368	0.0362	100	75.0	37	45	41	100

* *Limit of reporting (LOR) values replaced with half LOR prior to calculating average.*

\# *Prior to calculating compliance for health related chemicals, individual water sample test results are rounded to the same number of significant figures as the ADWG value (as prescribed in the ADWG and endorsed by SA Health).*

† *Chloraminated sections of the Myponga WTP system including Myponga township and, from March 2021, the townships of Yankalilla, Normanville and Carrickalinga.*

Table 5

2020-21 remote Aboriginal communities source water quality

System Name	Total Dissolved Solids [mg/L]			Hardness — Total [mg/L]			pH [pH Units]		
	Min	Max	Ave*	Min	Max	Ave*	Min	Max	Ave*
Amata	506	761	591	284	389	328	7.4	7.8	7.6
Davenport^	-	-	-	-	-	-	-	-	-
Gerard#	-	-	-	-	-	-	-	-	-
Indulkana	1300	1490	1360	391	531	431	6.8	7.1	7.0
Kalka	512	638	569	325	363	341	7.6	7.9	7.7
Kaltjiti	389	1270	943	281	349	313	7.6	7.9	7.7
Mimili	289	1050	797	187	207	194	7.6	8.1	7.8
Murputja Complex	267	1290	955	88	545	359	7.4	8.1	7.7
Nepabunna+	-	-	-	-	-	-	-	-	-
Oak Valley+	-	-	-	-	-	-	-	-	-
Pipalyatjara	672	750	712	374	458	405	7.6	7.8	7.7
Pt Pearce^	-	-	-	-	-	-	-	-	-
Pukatja	522	536	531	262	279	274	7.7	7.8	7.8
Raukkan^	-	-	-	-	-	-	-	-	-
Umuwa	330	413	359	201	259	228	7.5	7.9	7.7
Watinuma	650	1010	789	300	385	345	7.6	8.0	7.8
Yalata	8950	9270	9110	3290	3350	3320	6.9	6.9	6.9
Yunyarinyi	358	498	470	202	264	228	7.8	8.1	7.9

* *Limit of reporting (LOR) values replaced with half LOR prior to calculating average.*
^ *System supplied from another SA Water supply. Refer to data in Country Source Water Quality Table 3. Davenport supplied from Morgan WTP, Point Pearce supplied from Morgan WTP / Swan Reach WTP and Raukkan supplied from Tailem Bend WTP.*
# *Refer to Loxton WTP data in Country Source Water Quality Table 3.*
+ *System sourced from rainwater.*

Table 5 — *continued*

System Name	Colour – True (456nm) [HU]			Fluoride [mg/L]			Nitrate + Nitrite as Nitrogen [mg/L]			Turbidity [NTU]		
	Min	Max	Ave*	Min	Max	Ave*	Min	Max	Ave*	Min	Max	Ave*
Amata	<1	<1	<1	0.97	1.2	1.0	2.00	4.84	2.94	<0.10	0.32	<0.10
Davenport^	-	-	-	-	-	-	-	-	-	-	-	-
Gerard#	-	-	-	-	-	-	-	-	-	-	-	-
Indulkana	<1	<1	<1	0.40	0.56	0.50	6.04	8.23	7.38	<0.10	2.7	0.59
Kalka	<1	<1	<1	<0.10	1.0	0.66	4.63	6.84	5.24	<0.10	0.59	0.22
Kaltjiti	<1	<1	<1	1.2	1.6	1.4	2.83	9.31	7.72	<0.10	0.53	0.14
Mimili	<1	1	<1	1.7	2.0	1.9	12.9	16.1	14.9	<0.10	0.33	0.15
Murputja Complex	<1	1	<1	0.43	3.3	2.0	1.02	6.08	3.86	<0.10	0.77	0.16
Nepabunna+	1	1	1	-	-	-	-	-	-	2.2	2.2	2.2
Oak Valley+	1	1	1	-	-	-	-	-	-	0.24	0.24	0.24
Pipalyatjara	<1	<1	<1	0.32	1.0	0.62	6.02	7.26	6.44	<0.10	0.22	0.14
Pt Pearce^	-	-	-	-	-	-	-	-	-	-	-	-
Pukatja	<1	<1	<1	0.98	1.8	1.3	0.380	2.14	1.24	<0.10	<0.10	<0.10
Raukkan^	-	-	-	-	-	-	-	-	-	-	-	-
Umuwa	<1	<1	<1	0.86	0.96	0.92	2.11	5.70	3.12	<0.10	0.14	<0.10
Watinuma	<1	<1	<1	1.1	1.4	1.2	3.15	4.01	3.53	<0.10	0.65	0.27
Yalata	-	-	-	0.46	0.57	0.52	0.864	0.985	0.925	0.11	0.42	0.27
Yunyarinyi	<1	<1	<1	1.5	1.7	1.6	0.551	8.66	4.25	<0.10	0.16	<0.10

* *Limit of reporting (LOR) values replaced with half LOR prior to calculating average.*
^ *System supplied from another SA Water supply. Refer to data in Country Source Water Quality Table 3. Davenport supplied from Morgan WTP, Point Pearce supplied from Morgan WTP / Swan Reach WTP and Raukkan supplied from Tailem Bend WTP.*
# *Refer to Loxton WTP data in Country Source Water Quality Table 3.*
+ *System sourced from rainwater.*

Table 6

2020-21 remote Aboriginal communities drinking water distribution systems — customer tap water quality against Australian Drinking Water Guideliness

System	*E. coli* [per cfu/100mL]		Total Dissolved Solids [mg/L]			
	Samples	Health Compliance	Min	Max	Ave*	Aesthetic Compliance
ADWG Value		++				**≤600**
Amata	4	100	705	705	705	0.0
Davenport	12	100	125	125	125	100
Gerard	12	100	120	120	120	100
Indulkana	3	100	135	135	135	100
Kalka	4	100	-	-	-	-
Kaltjiti	4	100	496	496	496	100
Mimili	4	100	289	289	289	100
Murputja Complex	7	100	272	272	272	100
Nepabunna	3	100	74	74	74	100
Oak Valley	4	100	21	21	21	100
Pipalyatjara	4	100	700	700	700	0.0
Pt Pearce	12	100	140	140	140	100
Pukatja	4	100	432	432	432	100
Raukkan	12	100	183	183	183	100
Umuwa	4	100	372	372	372	100
Watinuma	4	100	885	885	885	0.0
Yalata	4	100	128	128	128	100
Yunyarinyi	3	100	99	99	99	100

++ *E. coli should not be detected.*
* *Limit of reporting (LOR) values replaced with half LOR prior to calculating average.*

Table 6 — *continued*

System	Chlorine Residual — Free [mg/L]^				Chlorine Residual — Total [mg/L] †			
	Min	Max	Ave*	Health Compliance	Min	Max	Ave*	Health Compliance#
ADWG Value				≤ 5				≤ 5
Amata	-	-	-	-	-	-	-	-
Davenport	-	-	-	-	<0.1	3.5	2.8	100
Gerard	<0.1	0.7	0.2	100	-	-	-	-
Indulkana	-	-	-	-	-	-	-	-
Kalka	-	-	-	-	-	-	-	-
Kaltjiti	-	-	-	-	-	-	-	-
Mimili	-	-	-	-	-	-	-	-
Murputja Complex	-	-	-	-	-	-	-	-
Nepabunna	-	-	-	-	-	-	-	-
Oak Valley	-	-	-	-	-	-	-	-
Pipalyatjara	-	-	-	-	-	-	-	-
Pt Pearce	-	-	-	-	1.6	3.2	2.8	100
Pukatja	-	-	-	-	-	-	-	-
Raukkan	-	-	-	-	1.4	3.5	3.0	100
Umuwa	-	-	-	-	-	-	-	-
Watinuma	-	-	-	-	-	-	-	-
Yalata	-	-	-	-	-	-	-	-
Yunyarinyi	-	-	-	-	-	-	-	-

A majority of the remote Aboriginal communities use UV as the mode of primary disinfection.

^ *Chlorinated systems only.*
† *Chloraminated systems only.*
* *Limit of reporting (LOR) values replaced with half LOR prior to calculating average.*
\# *Prior to calculating compliance for health related chemicals, individual water sample test results are rounded to the same number of significant figures as the ADWG value (as prescribed in the ADWG and endorsed by SA Health).*

Table 6 — *continued*

System	Colour — True (456nm) [HU]				Turbidity [NTU]			
	Min	Max	Ave*	Aesthetic Compliance	Min	Max	Ave*	Aesthetic Compliance
ADWG Value				**≤ 15**				**≤ 5**
Amata	<1	<1	<1	100	0.24	0.24	0.24	100
Davenport^	-	-	-	-	<0.10	0.53	0.21	100
Gerard	7	7	7	100	0.30	3.5	1.1	100
Indulkana	<1	<1	<1	100	0.57	0.57	0.57	100
Kalka	-	-	-	-	-	-	-	-
Kaltjiti	<1	<1	<1	100	0.12	0.12	0.12	100
Mimili	<1	<1	<1	100	<0.1	<0.1	<0.1	100
Murputja Complex	<1	<1	<1	100	<0.1	<0.1	<0.1	100
Nepabunna	<1	<1	<1	100	9.4	9.4	9.4	0.0
Oak Valley	2	2	2	100	0.20	0.20	0.20	100
Pipalyatjara	<1	<1	<1	100	<0.1	<0.1	<0.1	100
Pt Pearce^	-	-	-	-	<0.10	0.13	<0.10	100
Pukatja	<1	<1	<1	100	<0.10	<0.10	<0.10	100
Raukkan^	-	-	-	-	<0.10	0.43	0.15	100
Umuwa	<1	<1	<1	100	0.31	0.31	0.31	100
Watinuma	<1	<1	<1	-100	<0.1	<0.1	<0.1	100
Yalata	<1	<1	<1	100	<0.1	<0.1	<0.1	100
Yunyarinyi	<1	<1	<1	100	0.65	0.65	0.65	100

* *Limit of reporting (LOR) values replaced with half LOR prior to calculating average.*

^ *System supplied from another SA Water supply. Refer to data in Country Supply Table 4. Davenport supplied from Morgan WTP, Point Pearce supplied from Morgan / Swan Reach WTP, and Raukkan supplied from Tailem Bend WTP.*

Table 6 — *continued*

System	pH [pH Units]				Trihalomethanes - Total [µg/L] ^			
	Min	Max	Ave*	Aesthetic Compliance	Min	Max	Ave*	Health Compliance#
ADWG Value				**6.5 - 8.5**				**≤ 250**
Amata	7.8	7.8	7.8	100	-	-	-	-
Davenport	8.0	9.4	8.9	8.3	-	-	-	-
Gerard	7.6	9.2	7.9	91.7	73	116	93	100
Indulkana	7.7	7.7	7.7	100	-	-	-	-
Kalka	-	-	-	-	-	-	-	-
Kaltjiti	7.7	7.7	7.7	100	-	-	-	-
Mimili	7.8	7.8	7.8	100	-	-	-	-
Murputja Complex	7.7	7.7	7.7	100	-	-	-	-
Nepabunna	7.0	7.0	7.0	100	-	-	-	-
Oak Valley	6.4	6.4	6.4	0.0	-	-	-	-
Pipalyatjara	8.0	8.0	8.0	100	-	-	-	-
Pt Pearce	9.2	9.6	9.4	0.0	-	-	-	-
Pukatja	7.9	7.9	7.9	100	-	-	-	-
Raukkan	7.4	9.0	8.5	41.7	-	-	-	-
Umuwa	8.1	8.1	8.1	100	-	-	-	-
Watinuma	7.9	7.9	7.9	100	-	-	-	-
Yalata	7.3	7.3	7.3	100	-	-	-	-
Yunyarinyi	8.5	8.5	8.5	100	-	-	-	-

* *Limit of reporting (LOR) values replaced with half LOR prior to calculating average.*
^ *Chlorinated systems only.*
\# *Prior to calculating compliance for health related chemicals, individual water sample test results are rounded to the same number of significant figures as the ADWG value (as prescribed in the ADWG and endorsed by SA Health).*

Table 6 — *continued*

System	Fluoride [mg/L]				Iron — Total [mg/L]			
	Min	Max	Ave*	Health Compliance#	Min	Max	Ave*	Aesthetic Compliance
ADWG Value				**≤ 1.5**				**≤ 0.3**
Amata	0.88	0.94	0.91	100	0.0406	0.0406	0.0406	100
Davenport^	-	-	-	-	-	-	-	-
Gerard	<0.10	<0.10	<0.10	100	0.7989	0.7989	0.7989	0.0
Indulkana	<0.1	<0.1	<0.1	100	0.0516	0.0516	0.0516	100
Kalka	0.82	0.82	0.82	100	-	-	-	-
Kaltjiti	0.51	1.5	0.79	100	<0.0005	<0.0005	<0.0005	100
Mimili	0.51	0.72	0.60	100	<0.0005	<0.0005	<0.0005	100
Murputja Complex	0.52	0.60	0.55	100	0.0041	0.0041	0.0041	100
Nepabunna	0.21	0.21	0.21	100	0.5768	0.5768	0.5768	100
Oak Valley	<0.1	<0.1	<0.1	100	0.0022	0.0022	0.0022	100
Pipalyatjara	0.57	0.57	0.57	100	0.0302	0.0302	0.0302	100
Pt Pearce^	-	-	-	-	-	-	-	-
Pukatja	1.1	1.2	1.1	100	0.0006	0.0006	0.0006	100
Raukkan^	-	-	-	-	-	-	-	-
Umuwa	0.89	0.89	0.89	100	0.0371	0.0371	0.0371	100
Watinuma	1.2	1.3	1.3	100	0.0025	0.0025	0.0025	100
Yalata	<0.1	<0.1	<0.1	100	0.0019	0.0019	0.0019	100
Yunyarinyi	0.11	0.25	0.18	100	0.0263	0.0263	0.0263	100

* *Limit of reporting (LOR) values replaced with half LOR prior to calculating average.*

\# *Prior to calculating compliance for health related chemicals, individual water sample test results are rounded to the same number of significant figures as the ADWG value (as prescribed in the ADWG and endorsed by SA Health).*

^ *System supplied from another SA Water Supply. Refer to data in Country Supply Table 4. Davenport supplied from Morgan WTP, Point Pearce supplied from Morgan / Swan Reach WTP, and Raukkan supplied from Tailem Bend WTP.*

Table 6 — *continued*

System	Manganese — Total [mg/L]					Hardness — Total [mg/L]			
	Min	Max	Ave*	Health Compliance %#	Aesthetic Compliance	Min	Max	Ave*	Aesthetic Compliance
ADWG Value				**≤ 0.5**	**≤ 0.1**				**≤ 200**
Amata	0.0007	0.0007	0.0007	100	100	398	398	398	0.0
Davenport^	-	-	-	-	-	-	-	-	-
Gerard	0.0040	0.0040	0.0040	100	100	29	29	29	100
Indulkana	0.0028	0.0028	0.0028	100	100	95	95	95	100
Kalka	-	-	-	-	-	-	-	-	-
Kaltjiti	<0.0001	<0.0001	<0.0001	100	100	132	132	132	100
Mimili	<0.0001	<0.0001	<0.0001	100	100	52	52	52	100
Murputja Complex	0.0003	0.0003	0.0003	100	100	87	87	87	100
Nepabunna	0.0057	0.0057	0.0057	100	100	18	18	18	100
Oak Valley	0.0012	0.0012	0.0012	100	100	8	8	8	100
Pipalyatjara	0.0005	0.0005	0.0005	100	100	397	397	397	0.0
Pt Pearce^	-	-	-	-	-	-	-	-	-
Pukatja	0.0002	0.0002	0.0002	100	100	216	216	216	0.0
Raukkan^	-	-	-	-	-	-	-	-	-
Umuwa	0.0002	0.0002	0.0002	100	100	240	240	240	0.0
Watinuma	<0.0001	<0.0001	<0.0001	100	100	369	369	369	0.0
Yalata	0.0003	0.0003	0.0003	100	100	89	89	89	100
Yunyarinyi	<0.0001	<0.0001	<0.0001	100	100	51	51	51	100

* *Limit of reporting (LOR) values replaced with half LOR prior to calculating average.*

\# *Prior to calculating compliance for health-related chemicals, individual water sample test results are rounded to the same number of significant figures as the ADWG value (as prescribed in the ADWG and endorsed by SA Health).*

^ *System supplied from another SA Water Supply. Data available in Country Supply Table 4. Davenport supplied from Morgan WTP, Point Pearce supplied from Morgan / Swan Reach WTP, and Raukkan supplied from Tailem Bend WTP.*

United Nations Communication on Progress

As a participant of the United Nations Global Compact, we are part of the world's largest corporate sustainability initiative which exists to implement universal sustainability principles and support progress towards achieving the Sustainable Development Goals.

A principle-based approach

Ensuring our customers receive reliable, quality services and trust us, is why we are transparent in what we do and how we do it.

To achieve this, we comply with many acts, laws, regulations, codes of practice, policies and procedures, as well as set ourselves measurable goals which go beyond compliance and reach into working to improve outcomes for communities.

Our Corporate Compliance Framework ensures an integrated, strategic and consistent approach to managing our responsibilities, and provides processes for identifying, assessing, prioritising, reporting, and monitoring our performance on a regular basis so that what we do is safe, consistent, reliable, and in the best interest of our customers and our people.

iComply is our compliance system, providing a central repository for managing our obligations and licenses, raising non-compliances and all associated reporting.

In addition to our external responsibilities, we have five business-wide policies which reinforce our commitment to operating sustainably to maintain our viability now and into the future:

1. Customer and Community
2. Environment
3. Finance
4. Governance
5. People, Safety and Capability.

Our policies, legislative requirements and strategy guide our procedures, priorities and actions. Through our policies and compliance actions, our business and operations are aligned with the Ten Principles of the UN Global Compact to achieve the Sustainable Development Goals.

Human rights

Principle 1: Business should support and respect the protection of internationally proclaimed human rights.

Principle 2: Make sure they are not complicit in human rights abuses.

Acts and regulations

As a South Australian owned statutory corporation, we operate under Australian and South Australian laws, including, yet not limited to:

- *Australian Human Rights Commission Act 1986* (Commonwealth)
- *Fair Work Act 2009* (Commonwealth)
- *Age Discrimination Act 2004* (Commonwealth)
- *Disability Discrimination Act 1992* (Commonwealth)
- *Racial Discrimination Act 1975* (Commonwealth)
- *Sex Discrimination Act 1984* (Commonwealth).

Policy

Our Finance Policy states that "when making decisions about purchasing goods, services or works, we consider customer, community and environmental consequences as well as the financial benefits".

COMMUNICATION ON PROGRESS

UN GLOBAL COMPACT

This is our **Communication on Progress** in implementing the Ten Principles of the **United Nations Global Compact** and supporting broader UN goals.

We welcome feedback on its contents.

Plans and procedures

Our Leave Procedure has provisions for people to access personal leave and gives people experiencing family and domestic violence additional provision. It also has provisions for gender affirmation leave to support our people who are undertaking gender transition or defining their gender identity.

Our Supply Chain team implements plans to address a range of social impacts through the supply chain, including the State Government's Industry Participation Policy, our Reconciliation Action Plan and Modern Slavery Action Plan. Our procurement procedures include the need to identify and address any social impacts including human rights as part of our approaches to the supply market and with our contracted partners and their associated supply chains.

Actions

Working collaboratively with our suppliers and the supply chain, we identify risk and implement controls to minimise human rights risks throughout the supply chain. This includes:

- developing focused local participation plans and key social performance metrics with our strategic partners
- seeking to form and build relationships with Aboriginal-owned businesses and helping develop their commercial acumen
- identifying high risk human rights supply chains, working with our suppliers and the supply chain within these high-risk areas, and training and developing our people to improve social outcomes through our supply chain investment.

Our Disability Access and Inclusion Plan was launched in November 2020. The plan outlines 39 actions that will guide how we embrace and celebrate the active inclusion of people with diverse life experiences and circumstances.

By implementing the plan's actions, we will create a more accessible and inclusive organisation, ensuring fairness and respect for our people, our customers and community, including those living with disability, by providing opportunities and choice for all.

Labour

Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining.

Principle 4: The elimination of all forms of forced and compulsory labour.

Principle 5: The effective abolition of child labour.

Principle 6: The elimination of discrimination in respect of employment and occupation.

Acts and regulations

As a responsible statutory corporation, we actively comply with antidiscrimination, equal opportunity responsibilities and labour laws including:

- *Equal Opportunity Act 1984* (South Australia)
- *Work Health and Safety Act 2012* (South Australia)
- *Return to Work Act 2014* (South Australia)
- *Long Service Leave Act 1987* (South Australia)
- *Sex Discrimination Act 1984* (Commonwealth).

Our Enterprise Agreement enables collective bargaining in accordance with the *Fair Work Act 2009*. This requires the support from the majority of our people covered by the agreement, and who can vote on it, before it is then approved by the Fair Work Commission. It must provide better terms and conditions of employment for our people than if they were employed under the relevant modern award.

Policy

Our People, Safety and Capability Policy provides our people clear boundaries and guiding principles on our approach to managing our greatest asset: our people. It states that discrimination is not tolerated.

In addition, through our Finance Policy we encourage equal opportunity to all potential suppliers. The policy states that: "Potential suppliers are given equal opportunity to do business with us. To support the South Australian Industry Participation Policy and Aboriginal Business Procurement Policy, local and Aboriginal suppliers will be given opportunities to satisfy our requirements, including competitiveness and capability."

The Industry Participation Policy requires expenditure up to $500,000 to get at least one quote from a South Australian business. Above $500,000 must have an Industry Participation Plan and this weights South Australian suppliers supporting local jobs and improving our economy.

Plans and procedures

Our Enterprise Agreement incorporates our commitment to providing appropriate support, training and development to promote diversity in the workplace. This is supported by a number of plans including our Diversity and Inclusion Plan, Disability Access and Inclusion Plan, and our Reconciliation Action Plan.

Our Diversity and Inclusion Plan has four priority areas of focus:

1. women at SA Water
2. Aboriginal and Torres Strait Islander employment and retention
3. flexible and inclusive workforce
4. emerging workforce.

Our Leave Procedure has provisions for trade union training leave which acknowledges the right of our people to choose to be members of a trade union or employee association, and supports their development in promoting effective industrial relations in the workplace.

We also provide training for our people to develop and participate in our business as work health and safety representatives.

In addition, this procedure also has provisions for cultural/ceremonial leave for our Aboriginal and Torres Strait Islander people enabling them to fulfil cultural requirements and responsibilities that are a recognised and important part of their culture.

Actions

There are a range of actions to achieve outcomes in each of the four focus areas in our Diversity and Inclusion Plan.

Women at SA Water

- At 30 June 2021, 41.86 per cent of our leadership positions were held by women as we continue to grow opportunities to develop and support women in our business.

Aboriginal and Torres Strait Islander employment and retention

- Aboriginal employment was 2.80 per cent at 30 June 2021, having peaked at 2.95 per cent in May.
- In April we launched our Aboriginal and Torres Strait Islander Employment and Retention Plan which will help us achieve sustainable employment pathways for future and existing Aboriginal employees by creating development opportunities within our business. This year we appointed leadership roles for The Collective, a network for our Aboriginal and Torres Strait Islander people.

Flexible and inclusive workforce

- Our Disability Access and Inclusion Plan was launched, outlining 39 actions that will guide how we embrace and celebrate the active inclusion of people with diverse life experiences and circumstances, and our Disability Network was formed.
- Pride Together, our LGBTIQ+ network, hosted its first event in partnership with national network Pride in Water demonstrating the wider water industry's support for the contribution of people with diverse experiences and views.

Emerging workforce

- Diversity in our apprentice programs continues to grow with 40 per cent of the intake in 2020-21 being women and/or Aboriginal people.
- Gradovative continued to bring together our graduates to collaborate and look for fresh approaches to improve our business.
- Our support continued for the University of Adelaide's Women in STEM Careers Program, a number of whom have gone on to join our graduate program.

To implement sustainable procurement practices in our business, we investigate our supply chains to ensure we are not involuntarily complicitous in forced, compulsory or child labour through any international procurement of goods and services.

Environment

Principle 7: Businesses should support a precautionary approach to environmental challenges.

Principle 8: Undertake initiatives to promote greater environmental responsibility.

Principle 9: Encourage the development and diffusion of environmentally friendly technologies.

Acts and regulations

Our register of environmental legal requirements captures all the legislation we must comply with. This includes, yet is not limited to:

- *Environment Protection Act 1993* (South Australia)
- *Single-use and Other Plastic Products (Waste Avoidance) Act 2020* (South Australia)
- *Planning Development and Infrastructure Act 2016* (South Australia)
- *Aboriginal Heritage Act 1988* (South Australia)
- *Landscape South Australia Act 2019* (South Australia)
- *National Environmental Protection Council Act 1995* (South Australia).

Under the *Environment Protection Act 1993*, the operation of our licenced facilities is regulated by the South Australian Environment Protection Authority.

Policy

Our business-wide Environment Policy gives our people clear boundaries and guiding principles on how we provide environmental outcomes our customers value as we provide high quality drinking water and recycled water, as well as the effective collection, treatment and disposal of wastewater.

Plans and procedures

To fulfil our environmental commitments, we maintain a corporate Environmental Management System which is certified to the Australian and international standard AS/NZS ISO14001:2015.

Our corporate Environmental Management Plan outlines overarching environmental performance improvement objectives and targets. Its actions align to our operational and asset management plans.

To manage our environmental risks and ensure specified standards are met, our Environmental Management System has processes and procedures that determine how a specific process or activity must be performed.

Environmental incidents, hazards and risks are captured in our Safe, Actions, Assured, Managed system and managed in accordance with the policy and procedures.

Actions

We have partnered with the South Australian Government in supporting agribusiness growth through the Northern Adelaide Plains. The Northern Adelaide Irrigation Scheme has unlocked 12 GL of quality water to be used in agricultural food production applications on Adelaide's northern plains. The water is sustainable for horticulture, floriculture, fruit and nut orchids, table and wine grapes, high value broad-acre cropping, poultry and other intensive animal husbandry.

We have conducted a waste audit to identify areas and ways to reduce waste and develop guiding principles towards zero net waste. Its objective will enable us to identify how we can improve our future waste resource management performance and/or outcomes.

Environment and heritage assessments make sure potential impacts to the environment or heritage are identified and managed throughout planning, constructing and operating our assets.

Anti-corruption

Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery.

Acts and regulations

All of our people are 'public officers' and so bound by the provisions of the:

- *Independent Commissioner Against Corruption Act 2012* (South Australia)
- *Independent Commissioner Against Corruption Directions and Guidelines for Public Officers*
- *Public Interest Disclosure Act 2018* (South Australia)
- *Public Interest Disclosure Regulations 2019*
- *Public Sector (Honesty and Accountability) Act 1995* (South Australia)
- *Public Sector (Honesty and Accountability) Regulations 2010*
- *Criminal Code Act 1995* (Commonwealth).

Policy

As public officers our people must comply with the South Australian Public Sector Fraud and Corruption Control Policy and the Code of Ethics for the South Australian Public Sector.

Our business-wide Governance Policy provides clear boundaries and guiding principles for good governance. It states that "we have a culture where ethical behaviour is paramount, and fraud and corruption is not tolerated".

Plans and procedures

Our Fraud and Corruption Control Plan establishes a uniform approach to managing risks associated with fraud and/or corruption. Fraud and corruption control is a responsibility shared by all our people and our contractors. The plan is supported by a Fraud and Corruption Control Procedure.

Our Ethical Standards Procedure ensures respect, safety, integrity and lawfulness in our dealings with the public and each other, and that our people do not engage in fraudulent, corrupt or illegal activity.

Our Procurement and Contract Management Procedure provides the steps and guidance to our people on our procurement processes, authorities and accountabilities to ensure probity is applied and conflicts of interest are managed.

Actions

Our performance is monitored regularly, and this information is provided to our Senior Leadership Team, Board committees and external regulators.

Using a Three Lines of Defence model, we assure effective management of risk and governance through:

1. management control of risk
2. monitoring and testing the effectiveness of management of risk
3. independent evaluation of the adequacy and effectiveness of management approaches.

Compliance programs are managed by specialist areas in our business where a specific area of operation has significant responsibility requirements. Public performance and compliance reporting is undertaken regularly.

How we contribute to the SDGs

The Sustainable Development Goals (SDGs) are inherently interdependent, and our contributions are more significant for some than others. We have undertaken a materiality assessment to identify the goals where we can make the biggest impact.

Our Strategy 2020-25 identifies five strategic areas of focus that support progress towards achieving the SDGs:

Strategic area of focus	Primary SDGs	Secondary SDGs
Driving customer outcomes		
Water for the future		
Healthy communities		
Proactive environmental leadership		
Our people for the future		

Where individual goals have aligned with more than one strategic area of focus in Our Strategy, they have not been duplicated for the purposes of this report.

Driving customer outcomes

Primary focus

Goal 6 targets we contribute to	Our target	Our progress at 30 June 2021	Read more
6.1 By 2030, achieve universal and equitable access to safe and affordable drinking water for all.	Deliver water services across the state.	More than 205 billion litres of safe, clean drinking water supplied to homes and businesses through 721,303 water connections.	Our services, p. 14
		The disinfection method for drinking water supplied to more than 200,000 properties across townships on the Fleurieu Peninsula has been changed from chlorination to chloramination.	Improved water quality for Fleurieu customers, p. 27
		A UV component was installed at the Myponga Water Treatment Plant to minimise the threat of microbiological contamination and any harmful pathogens. This enabled public on-water access to the reservoir while maintaining the supply of safe, clean drinking water.	
	Minimise or prevent service interruptions to our customers.	We continued deployment and use of smart technology in our network and assets to minimise impacts of temporary service interruptions.	Technology enhances business, p. 23
	Affordable bills by delivering low price changes.	A price reduction came into effect on 1 July 2020 with the average household saving approximately $200 each year, and the average business receiving savings of about $1,350.	Price reduction for customers, p. 22
	Provide ongoing services to remote communities.	An estimated 2,650 customers living in 22 remote Aboriginal communities, including the Anangu Pitjantjatjara Yankunytjatjara Lands, Maralinga Tjarutja and Aboriginal Lands Trust Communities received our services.	
		Construction began in June 2021 on a new and improved $2.3 million desalination plant in the Aboriginal community of Yalata on the state's Far West Coast, ensuring a continued, reliable and safe supply of drinking water to local residents and businesses.	State-of-the-art desalination plant for Yalata, p. 31

Goal 6 targets we contribute to	Our target	Our progress as of 30 June 2020
	Support customers experiencing hardship.	Our Customer Assist Program continued to support customers finding it difficult to pay their bills, including free, confidential and independent financial counselling, support and assistance.
		A separate hardship program was created in 2020-21 to provide customers needing additional support during COVID-19. This enabled customers to put account payments on hold for six months, with collection and recovery action also on hold. For customers who made payments, we provided an incentive with a credit of 15 per cent of the payments made each month, capped at $100 per quarter.
6.2 By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations.	Deliver wastewater services across the state.	Safe wastewater services were provided through 541,943 sewerage connections to homes and businesses in metropolitan Adelaide and larger regional towns.
	Work with corporate partners who enable improved community outcomes that align with Our Strategy.	Our partnership with WaterAid continued, supporting work which enables the world's poorest people to gain access to clean water, decent toilets and good hygiene, allowing them to unlock their potential. We also continued to partner with Orange Sky which provides a free mobile laundry service for people experiencing homelessness.
6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimising release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally.	Reduce wastewater overflows into the environment.	In 2020-21 we had 135 environmental wastewater overflows, seven fewer than in 2019-20. This performance is also measured over a five-year rolling average to account for wet and dry conditions. Our five-year rolling average was 121.4 overflows.
		In 2020-21, $1.3 million was invested to proactively clean and inspect approximately 177 kilometres of wastewater gravity mains using CCTV investigations in environmental hotspot areas.

Secondary focus

Goal 3 targets we contribute to	Our target	Our progress as of 30 June 2021	Read more
3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.	Comply with the Australian Drinking Water Guidelines.	Overall compliance with the ADWG for health-related parameters was 100 per cent for metropolitan systems, 99.94 per cent for country areas and 99.83 per cent for remote Aboriginal community supplies.	Water quality, p. 51
3.D Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks.	Work in partnership with SA Health to support the South Australian Government's response to COVID-19.	Our COVID-19 wastewater testing continued, providing SA Health with an additional tool to understand the prevalence of the virus in the community.	Supporting the state's COVID-19 response, p. 38

Water for the future

Primary focus

Goal 6 targets we contribute to	Our target	Our progress at 30 June 2021	Read more
6.4 By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity.	Reduce our reliance on freshwater by increasing the amount of recycled water.	At 33.2 per cent, we are the second highest recycler of wastewater among large utilities in Australia.	
6.5 By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate.	Implementing integrated water management and adaptive planning across our business.	Our ongoing water security planning and water supply and demand modelling continued. We have started developing an integrated water management approach.	
6.6 By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes.	Protect our reservoirs and the catchment areas surrounding them.	Fencing was installed around the water at Hope Valley to protect water quality while enabling public access to the reservoir reserve.	Expanded access at reservoir reserves, p. 37
		We continue to support community volunteering at our reservoir reserves which work to protect trees, threatened plants, birds and wildlife.	Expanded access at reservoir reserves, p. 37
		Our land management plans ensure protection of vegetation in our catchments. This includes pest and over abundant animal management.	Feral focus, p. 44

Healthy communities

Primary focus

Goal 10 targets we contribute to	Our target	Our progress at 30 June 2021	Read more
10.2 By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status.	Support people living with a disability.	Our Disability Access and Inclusion Plan was launched in November 2020 and outlines 39 actions that will guide how we embrace and celebrate the active inclusion of people with diverse life experiences and circumstances.	Strength in diversity and inclusion, p. 46
		Our Community Partnerships Program supports initiatives which promote social inclusion for people living with a disability. In 2020-21 we supported Can-Do Group's Living Laundry and Novita's aquatic therapy program.	Partnerships support grass-roots community activities, p. 40
		Through our Reservoirs Partnership Program, Xlent Disability Services received support for people with a disability to safely participate in activities at a reservoir reserve.	Expanded access at reservoir reserves, p. 37
		Fully accessible kayak launch facilities were installed at Myponga and Warren reservoir reserves. They are compliant with the *Disability Discrimination Act 1995*. Picnic furniture and walking trails were also redesigned to improve accessibility.	Expanded access at reservoir reserves, p. 37
	Equitable and accessible products and services.	In 2020-21, we embarked on a major customer research project to understand more deeply the needs and expectations of customers living with a disability, those from culturally and linguistically diverse communities, and ageing customers.	
	Support people living on low incomes.	Our sponsorship of Foodbank, Australia's largest food relief organisation, supports vulnerable Australians living on low incomes.	
		Funds were used to establish a community garden adjacent to the Foodbank warehouse in Berri to grow produce to be used in meal packs, food deliveries and distributed via their Mobile Food Hub.	

Primary focus

Goal 11 targets we contribute to	Our target	Our progress at 30 June 2021	Read more
11.4 Strengthen efforts to protect and safeguard the world's cultural and natural heritage.	Protect and promote cultural and natural heritage of Aboriginal people.	Aboriginal heritage and environmental planning, assessment, management and approval are part of our infrastructure management activities.	
		By building our knowledge and capability of the importance and legal requirements of cultural heritage and planning, we are working to reduce and avoid heritage incidents.	
		Our people are all required to undertake mandatory cultural awareness training and we recognised and celebrated days of significance including NAIDOC Week and National Reconciliation Week.	Delivering our Stretch Reconciliation Action Plan, p. 32
			More than a word, p. 34
	Partner with Aboriginal communities to record and share Aboriginal cultural heritage and protect natural heritage.	Through our Reconciliation Partnerships Program we sponsored the Regional Anangu Services Aboriginal Corporation to install a fence around important burial sites, protecting them from animals that have been destroying the gravesites.	Reconciliation partnerships, p. 34
		In partnership with the Burrandies Aboriginal Corporation, Department for Environment and Water and the Limestone Coast Landscape Board, a prescribed burn was undertaken to help combat invasive weeds at the Finger Point Wastewater Treatment Plant. The burn incorporated fire burning practices historically used by members of the Boandik community. The Boandik community was also engaged to undertake a cultural heritage survey at Finger Point to understand the associated risks.	Finger Point cultural burn, p. 44
		Further partnerships were undertaken with Aboriginal Contemporary Arts to deliver the Kauwi Centre for Water Exploration landscaping maintenance.	Community education, events and engagement, p. 39

Goal 11 targets we contribute to	Our target	Our progress at 30 June 2021	Read more
11.7 By 2030, provide universal access to safe, inclusive and accessible green and public spaces, in particular for women and children, older persons and persons with disabilities.	Research and implement new ways to use water effectively for cooling our communities and reducing the effect of urban heat islands.	A smart irrigation package was installed at 26 reserves/parks across four local councils (two in metropolitan Adelaide and two in regional areas). These parks are now saving approximately 20 per cent on water while continuing to achieve greening and cooling.	Liveability through urban planning, p. 36
		To demonstrate the cooling benefits of a well-irrigated public open space, we have installed more than 250 air temperature sensors in public parks and playgrounds around Adelaide.	
		Live temperature readings at each location are available on an interactive map, enabling the community to select a cool location for recreation; and councils to optimise their irrigation practices.	
		A new approach to our land holdings has been adopted to find suitable sites for greening and community gardens, in partnership with local councils and community groups.	Creating green spaces, p. 35

Secondary focus

Goal 4 targets we contribute to	Our target	Our progress as of 30 June 2021	Read more
4.4 By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship.	Providing learning opportunities for our communities to support decent work.	Our plumbing course continues to empower Aboriginal students and community members to fix water leaks. The course was expanded to Aboriginal communities on the far west coast. In 2020-21, 220 community members took part in the course.	Delivering our Stretch Reconciliation Action Plan, p. 32
4.7 By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development.	Providing learning opportunities for our communities to support sustainable development.	5,060 students and their teachers participated in our education program The Well.	Community education, events and engagement, p. 39
		62 people attended community presentations about water services as part of our water literacy program and toured our treatment plants.	Community education, events and engagement, p. 39
		Through our Community Partnerships Program, we helped Westside Housing tenants increase understanding of their water use habits, and apply best practice methods of using water efficiently in their homes and reduce their water costs.	Partnerships support grass-roots community activities, p. 40
		In 2020-21 we supported a water wise gardening project at St Mary's College which established an interschool seed propagation project that promotes water wise gardening skills. St Mary's students developed links with other schools and shared garden skills, water conservation and respect for nature.	Partnerships support grass-roots community activities, p. 40
		As part of our sponsorship of the SA Autumn Garden Festival in Clare, our experts in sustainability and liveability through water use presented to festival-goers and held workshops on sustainable gardening.	Partnerships support grass-roots community activities, p. 40

Secondary focus

Goal 8 targets we contribute to	Our target	Our progress as of 30 June 2021	Read more
8.3 Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalisation and growth of micro-, small- and medium-sized enterprises, including through access to financial services.	Increasing Aboriginal and Torres Strait Islander supplier diversity.	We spent more than $2.3 million (0.33 per cent of our total spend) with Aboriginal businesses, comprising a direct spend in excess of $500,000 and indirect spend of more than $1.7 million.	Delivering our Stretch Reconciliation Action Plan, p. 32
		The use of Aboriginal businesses continues to be promoted internally, helping our people connect with these suppliers.	
8.9 By 2030, devise and implement policies to promote sustainable tourism which creates jobs, promotes local culture and products.	Increase sustainable recreation opportunities at our reservoir reserves.	Nine of our reservoir reserves are open to the public offering a range of land-based and on-water activities. By June 2021, there had been more than 260,000 visitors to reservoir reserves since April 2019.	Expanded access at reservoir reserves, p. 37
		This year Hope Valley Reservoir Reserve was opened for land-based activities, and at Myponga Reservoir Reserve on-water access was opened, and the accessible land-based area expanded, bringing increased economic opportunities for the Myponga township.	Expanded access at reservoir reserves, p. 37

Secondary focus

Goal 9 targets we contribute to	Our target	Our progress as of 30 June 2021	Read more
9.1 Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human wellbeing, with a focus on affordable and equitable access for all.	Invest in sustainable infrastructure.	In July 2020, work started on key projects being delivered as part of our new four-year capital works program.	New capital works program begins, p. 25
			Water storage boost for Port Lincoln, p. 26
9.4 By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, all countries taking action in accordance with their respective capabilities.	Invest in sustainable infrastructure.	As part of the Tea Tree Gully Sustainable Sewers project, work began at two pilot sites in Modbury with 134 metres of sewer main laid and 10 of 17 customers in Glenere Drive connected to our sewer network.	Wastewater upgrades ensure reliability, p. 26
		A new anaerobic digester began operating at Port Lincoln Wastewater Treatment Plant in late 2020. The digester generates renewable energy called biogas which is used to help power the treatment plant, ensuring sustainable waste management and resource recovery.	Wastewater upgrades ensure reliability, p. 26
		The $11 million Finger Point pipeline upgrade saw about seven kilometres of new sewer main installed near Finger Point to replace a section of the 30-kilometre pipe responsible for delivering the wastewater from about 26,000 Mount Gambier residents and businesses to the region's wastewater treatment facility.	Wastewater upgrades ensure reliability, p. 26

Proactive environmental leadership

Primary focus

Goal 13 targets we contribute to	Our target	Our progress at 30 June 2021	Read more
13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries.	Adequately adapt to climate change.	We developed a draft Climate Change Action Plan that will ensure we are resilient to the impacts of climate change, including the management of physical, and transitional risks. The plan contains actions for climate mitigation and adaptation, and proposed targets.	
	Improve resilience for natural disasters.	Approximately $1.2 million was spent on bushfire preparedness. An assessment of critical assets located in bushfire-prone areas was undertaken to determine conformance with relevant codes and standards. In response, vegetation was removed and modifications made to buildings and infrastructure.	
13.2 Integrate climate change measures into national policies, strategies and planning.	Zero net greenhouse gas emissions by 2050.	We continued to actively reduce our greenhouse gas emissions with a view to meeting our goal of zero net emissions by 2050.	
		Through buying electricity from the spot market, we maximise the purchase of renewable energy.	
		Our total greenhouse gas emissions for 2020-21 were estimated to be 292,949 tonnes of CO_2e.	
		On our land we have 2,285 hectares of reforestation for the purpose of carbon sequestration.	
	Actively participate in events to promote sustainable water use for cooling.	The use of water for greening and cooling is promoted through a range of activities at public events including the Adelaide Fringe, Festival of Cycling and the Clare Autumn Garden Festival.	Creating green spaces, p. 35 Liveability through urban planning, p. 36 Partnerships support grass-roots community activities, p. 40

Secondary focus

Goal 7 targets we contribute to	Our target	Our progress as of 30 June 2021	Read more
7.2 By 2030, increase substantially the share of renewable energy in the global energy mix.	Invest in renewable technologies to reduce our greenhouse gas emissions.	The final solar panels for our Zero Cost Energy Future initiative were installed. About 217,000 panels were installed, bringing the total to more than 367,000 panels at 33 sites across the state.	Our zero cost energy future, p. 41
		Panels at 25 sites are energised and connected to the grid.	Our zero cost energy future, p. 41
		Once all panels are energised, they will deliver 242 gigawatt hours per annum complemented by 34 megawatt hours of battery capacity.	
	Use biogas generated from the wastewater treatment process as a fuel source.	Biogas was generated at our three metropolitan wastewater treatment plants: 1. Bolivar produced 12.661 million metric standard cubic metres (MMSCM) 2. Glenelg produced 3.663 MMSCM 3. Christies Beach produced 1.378 MMSCM.	
		A new anaerobic digester at the Port Lincoln Wastewater Treatment Plant can generate biogas providing a source of heat for the digester. In 2020-21 it produced approximately 600 m^3/day of biogas.	Wastewater upgrades ensure reliability, p. 26

Secondary focus

Goal 12 targets we contribute to	Our target	Our progress as of 30 June 2021	Read more
12.4 By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimise their adverse impacts on human health and the environment.	Maximise the beneficial reuse of biosolids and water treatment residuals generated from our treatment plants.	In 2020-21 we achieved 100 per cent reuse of all suitable biosolids generated from our wastewater treatment plants.	
		A pilot program is underway to reuse suitable water treatment residuals for quarry rehabilitation.	
12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse.	Encourage our community to drink tap water and avoid single-use plastic bottles.	In 2020-21 our Quench Benches and drinking fountains provided 9,000 litres of drinking water at 35 public events across the state.	Community education, events and engagement, p. 39
		The network of community drinking fountains expanded with 10 installed in 2020-21.	New community drinking fountains, p. 43
		Our Miss Isla caravan attended Ozwater'21 providing conference participants with tap water and promoting better environmental outcomes through the refill of re-usable bottles.	
	Zero net waste by 2050.	A business-wide innovation challenge generated 93 new ideas of how we can reduce and reuse waste. About half of these ideas are being further investigated, developed or tested for implementation.	Reducing waste, p. 42
12.7 Promote public procurement practices that are sustainable in accordance with national policies and priorities.	Improve the sustainability of our procurement practices, aligned with national legislation.	We use local suppliers and comply with the South Australian Industry Participation Policy, providing opportunities for local businesses to win work with us. Our procurement practices include a minimum of 15 per cent weighting against the Industry Participation Policy.	
		Working towards zero net waste, we seek to know the environmental criteria of suppliers and the end-of-life outcomes for things we procure.	
		A risk assessment is undertaken for all suppliers that have higher potential for modern slavery and a risk-based approach is applied to prioritising actions we can take. In high-risk categories we work with key contracts to ensure we are comfortable with practices in their supply chains.	
12.8 By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature.	Increase community awareness of available native species	The development of native garden demonstration sites began, featuring indigenous plant species to improve liveability and biodiversity, and promote local plant options through our social media channels.	

Secondary focus

Goal 14 targets we contribute to	Our target	Our progress as of 30 June 2021
14.1 By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution.	Reduce the load on receiving waters by recycling water for reuse.	We recycled 30 per cent of water from our wastewater treatment plant effluent. This is above our target of 28 per cent.
	Comply with our environmental protection responsibilities.	We achieved 99 per cent compliance with our legislative and regulated environmental protection responsibilities, against a target of 98 per cent.
14.2 By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration, to achieve healthy and productive oceans.	Support our community to care for life below water.	Through our Community Partnerships Program we supported the Marine Discovery Centre to provide learning experiences and empower students to actively protect South Australia's iconic coastal and marine environment. Funding supported the Kids Marine Scientist Club for children aged 7 to 13 years. Education topics included sustainable fishing, responsible water use, Aboriginal culture and the importance of preserving our marine environments.

Secondary focus

Goal 15 targets we contribute to	Our target	Our progress as of 30 June 2021
15.1 By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements.	Maintain and enhance the ecological integrity of our land and maximise areas of native vegetation.	We carried out restoration of riparian watercourse in the Myponga Reservoir catchment, including erosion control and bank stabilisation.
		Further enhancements were undertaken to rehabilitate the Mobilong and Toora river irrigation flats to maintain the health of the environment and manage acid sulphate soil.
		Biodiversity improvements were carried out at grassy woodland restoration at Millbrook.
15.3 By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world.	Revegetation of degraded land with native plant species.	Dryland grassland areas were re-established at Warren, Hope Valley and Myponga reservoir reserves using native grass species.
15.5 Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species.	No livestock grazing on our land abutting dams, weirs, and natural aqueducts.	Restrictions prohibit grazing at any of our reservoir reserves or groundwater basins, to protect against microbial contamination and erosion.
	Protect threatened flora and fauna species.	Collaborative programs are underway to monitor and protect endangered species recovery following a bushfire in Mount Bold Reservoir Reserve.
	Protect biodiversity through prescribed burning of catchments.	In 2020-21, we completed seven prescribed burns totalling approximately 360 hectares, including a cultural burn at Finger Point which incorporated the fire burning practices of the Traditional Owners, the Boandik people.
		Since 2009, approximately 3,300 hectares of our land has been burnt through prescribed burning activities including approximately 2,000 hectares of reservoir reserve land.
15.8 By 2020, introduce measures to prevent the introduction and significantly reduce the impact of invasive alien species on land and water ecosystems, and control or eradicate the priority species.	Active programs in place to control all pest plant and animal species identified as a priority and/or prescribed in legislation.	Pest animal and pest plant control programs are implemented and recorded across all our major landholdings for key species prescribed in legislation, including declared weeds, such as olives and Coolatai grass, and prescribed animals including goats, deer, rabbits, pigs and foxes.

Our people for the future

Primary focus

Goal 10 targets we contribute to	Our target	Our progress at 30 June 2021	Read more
10.2 By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status.	Increase the number of Aboriginal and Torres Strait Islander employees.	Aboriginal and Torres Strait Islander employment is 2.8 per cent, up 0.2 per cent from 2019-20.	Strength in diversity and inclusion, p. 46
		In our apprentice program, 40 per cent of our intake were women and/or Aboriginal people, consistent with 2019-20.	Strength in diversity and inclusion, p. 46

Secondary focus

Goal 4 targets we contribute to	Our target	Our progress as of 30 June 2021	Read more
4.5 By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, Indigenous peoples, and children in vulnerable situations.	Provide learning opportunities for Aboriginal and Torres Strait Islander people through scholarships, apprenticeships, traineeships and leadership courses.	In 2020-21, 14 learning opportunities were delivered for Aboriginal and Torres Strait Islander people.	

Secondary focus

Goal 5 targets we contribute to	Our target	Our progress as of 30 June 2021	Read more
5.5 Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life.	Increase the number of women in leadership positions.	Women held 41.86 per cent of leadership positions, up by 2.96 per cent from 2019-20.	Strength in diversity and inclusion, p. 46
		Inclusion targets for women in leadership and Aboriginal and Torres Strait Islander employment were written into contracts for our partners (Adelaide Services Delivery and our major and minor capital delivery framework partners) and incentivised.	
	Increase opportunities for women in STEM.	More than 37 per cent of our STEM undergraduates are female, as are 40 per cent of our graduates.	Strength in diversity and inclusion, p. 46
		Our support continued this year for the University of Adelaide's Women in STEM Careers Program which supports 100 women studying in the STEM fields.	Strength in diversity and inclusion, p. 46
	Apprenticeships for women in the field.	In 2021-21 we had four female apprentices.	

Secondary focus

Goal 8 targets we contribute to	Our target	Our progress as of 30 June 2021	Read more
8.6 By 2020, substantially reduce the proportion of youth not in employment, education or training.	Provide a number of entry level positions for graduates, trainees, cadets and apprentices.	Across our business we have 70 positions dedicated to these programs.	Strength in diversity and inclusion, p. 46
	Provide work experience opportunities for Aboriginal and Torres Strait Islander people through our partnership with Tauondi Aboriginal College.	Five opportunities were offered in 2020-21, an increase of two from the previous year.	
	Increase the number of traineeships, apprenticeships and graduate placements for Aboriginal and Torres Strait Islander people.	There were six successful Aboriginal applicants for apprenticeships and traineeships in 2020-21, one more than in 2019-20.	
	Provide graduate roles.	An additional four graduate positions were made available bringing the total to 22, with graduate retention up one per cent to 97 per cent.	


SA Water