

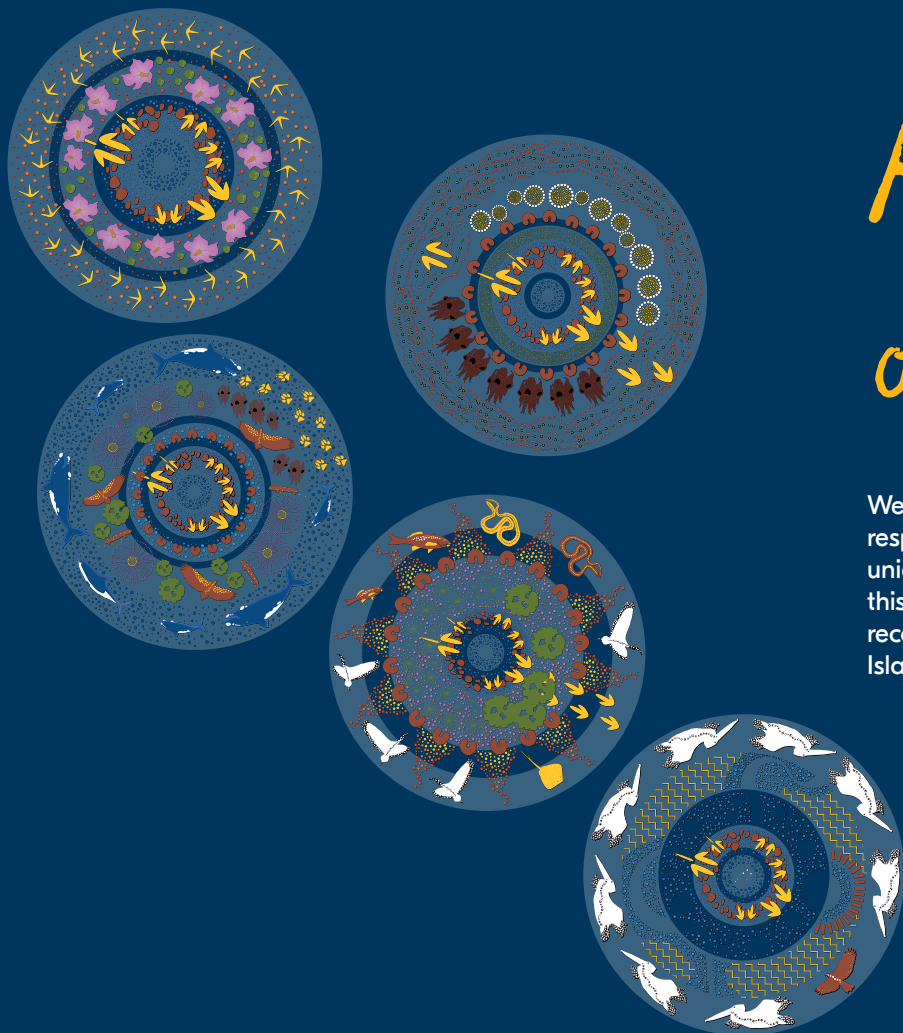


Wastewater treatment plant customer engagement

Keeping the environment safe and our
customers informed



Government
of South Australia



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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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.

By efficiently and expertly operating our drinking water and wastewater networks, we protect public health and help maintain modern lifestyle standards for our community.

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

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

Our strategy

Our strategy for 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.

The management and operation of our wastewater treatment plants is driven by the principles and direction of our strategy, with a strong focus on three key areas of our strategy.

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.



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.



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.



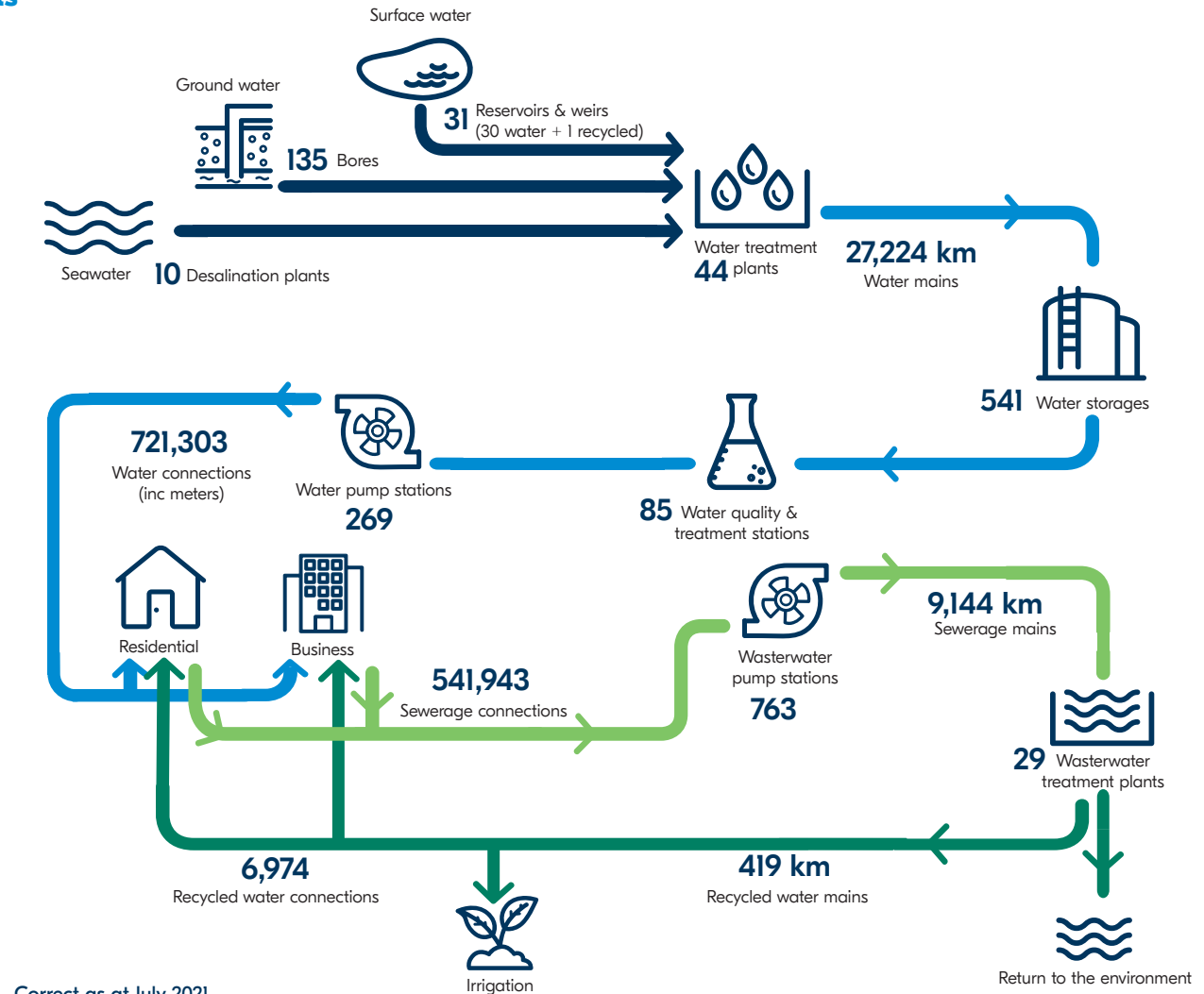
Your sewerage network

South Australia was the first Australian state to install sewage treatment systems, and Adelaide was the first capital city to achieve secondary treatment of sewage, using anaerobic microorganisms to breakdown remaining waste after the removal of solids.

Adelaide's sewerage system has more than 8,700 kilometres of pipes, with three major wastewater treatment plants at Bolivar, Glenelg and Christies Beach. We also have a smaller treatment plant at Aldinga and 20 more treatment plants in the Adelaide Hills and regional areas.

Our wastewater treatment plants do more than manage sewage. We actively operate our plants to consistently give back to the community and the environment.

Overview of our network and assets



Your sewerage network

Reusing and returning treated wastewater to the environment

Supported by the Australian Water Quality Centre, our Adelaide-based internationally recognised laboratories, our wastewater treatment plants are equipped with the technology and processes, and our people have the expertise needed to treat wastewater so it can be reused or safely returned to the environment. In fact, we recycle more than 32 per cent of wastewater for use by customers.

Recycled water is used to irrigate parklands, community grounds and the horticulture and viticulture industries. It is also piped directly to residential homes in Mawson Lakes, Bowden and Seaford for flushing toilets and watering gardens.

Smart technology in our sewerage network

We use advanced smart technology to monitor odour, movement and levels in our sewerage system so we can understand where an issue may exist before it impacts our infrastructure and the community. In addition, the

installation of smart sensors on pumps in our network helps us identify and forecast when a pump repair or replacement is needed before failure occurs.

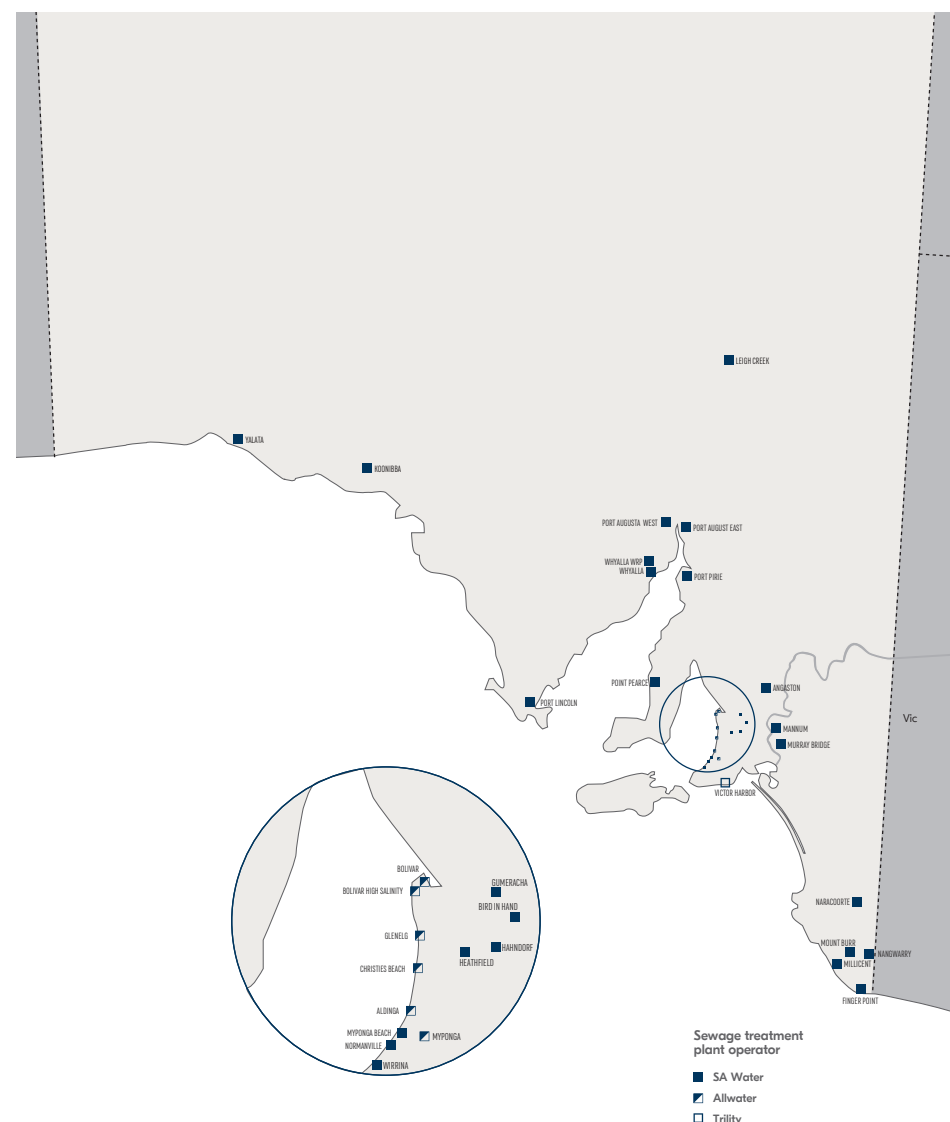
Biogas

The bacteria used in some of our treatment processes create gases, including methane, called biogas. We capture enough biogas to create 15 gigawatts per hour of power per year. That's about half the energy needs for all three wastewater treatment plants in metropolitan Adelaide — Bolivar, Glenelg and Christies Beach.

Biosolids

Organic material from the wastewater process is collected and treated to make it safe for South Australian farmers, who have been using them as a compost since the 1960s. We call these materials biosolids and farmers use them to improve their soils and crops. Demand for biosolids produced by our Bolivar Wastewater Treatment Plant currently exceeds our annual output of 35,000 tonnes.

Our wastewater treatment plants



Your sewerage network

How we treat sewage

Sewage is more than 99 per cent water which can be recycled and reused. It mainly comes from household sinks, showers, toilets and washing machines, and every year we manage and treat millions of litres of sewage helping keep South Australians and our environment healthy.

We operate 28 wastewater treatment plants across the state, including our three major wastewater treatment plants at Bolivar, Glenelg and Christies Beach which process more than 250 megalitres of sewage every day. That's about five full baths every second!

The treatment process

Primary treatment

Screens

Screens are used to remove large objects that make their way into the sewer. This can include plastic, food scraps, packaging and plant debris.

Grit removal

The sewage passes through two grit vortexes where the grit is removed. The grit is washed and taken away to landfill.

Primary sedimentation tanks

By this stage, all large solids are removed leaving water which has some small solid particles. The water moves to the primary sedimentation tanks where the remaining solid particles sink to the bottom. These solids are known as raw or primary sludge.

Secondary treatment

Activated sludge reactors

The water from the primary settling tanks is mixed with microorganisms (mainly bacteria) and aerated. The microorganisms grow and reproduce as they feed on the organic pollutants and nutrients in the water. The mass of microorganisms is called a biomass or activated sludge.

Secondary sedimentation tanks

Here the biomass settles to the bottom of the tank leaving the water on the top. Some of the sludge is reused back in the aeration tanks. The clarified water goes into stabilisation lagoons.

Stabilisation lagoons

The water from secondary sedimentation tank stays in the stabilisation lagoons for about 20 to 30 days to further improve the quality.

Return to ocean

After treatment the water is suitable for release into the ocean or local waterway.

Filtration and disinfection

A portion of the water from the stabilisation lagoons is then filtered and chlorinated before it is reused.

Advanced water recycling plant

A portion of the water going through to stabilisation lagoons is treated

further in an advanced water recycling plant before it is reused in agriculture.

Managed aquifer storage

During winter, when demand is much lower, the recycled water is stored underground (and above ground) ready to be used when the weather is warmer and drier, providing a climate independent supply of recycled water.



Your sewerage network

Investing in the network

The reliability of our sewerage network is central to delivering customer outcomes, building healthy communities and demonstrating proactive environmental leadership. Long-term investment in our assets ensures we sustain and improve the network to deliver reliable and trusted services for our customers.

By making thoughtfully planned investment over time that is aligned with forecast customer and asset needs, we can keep customer prices as low and stable as possible, while maintaining an appropriate balance between cost, service provision and risk.

Between 2020 and 2024, we are investing \$534 million to:

- renew existing sewerage assets — \$221 million
- expand the sewerage system to meet future growth demand — \$108 million
- improve our network to ensure we continue to meet existing and new external responsibilities and improve customer service — \$205 million.

This investment will ensure we meet our regulated responsibilities, drive efficiencies in the way we do things, and maintain, improve and expand our assets so our customers can continue to rely on the services we provide.



Engaging with the community

Engaging directly with our customers and community is essential to how we operate. It enables us to keep you informed and provides us an understanding of what's important to you, so we can continually improve our services to meet your needs and expectations.

Our stakeholder engagement principles

Accountable

We ensure an appropriate level of influence in our decision-making processes and build trust through ongoing dialogue, closing the loop on outcomes and timely evaluation to demonstrate how interests have been accounted.

Accessible

We engage early and often, openly providing relevant and timely information to ensure an understanding of our organisation and how to engage with us in a genuine way on issues of interest.

Inclusive

We work together with a broad cross-section of the community to design innovative and genuine collaborative opportunities that enable community members to exercise their right to participate and do so in ways in which they are comfortable.

Consider impact

We acknowledge the impacts of our activities and embrace opportunities to build relationships, demonstrating commitment to addressing concerns through timely actions.

Foster a strong engagement culture

We promote a sustainable culture of robust engagement, both through professional and social interactions, and will empower staff to explore new ideas and continuous improvement based on what we hear.

Value the knowledge of stakeholders

We acknowledge and respect the expertise and perspectives of our stakeholders by incorporating their knowledge with that of experts to enhance outcomes for everyone, including project and reputational benefits, and reconciliation with Aboriginal and Torres Strait Islander people.



Engaging with the community

How we communicate with you

Here are some of the proven methods we use to ensure we maintain an ongoing conversation with our customers and community.



Online engagement

Our engagement website Water Talks (watertalks.sawater.com.au) provides opportunities for customers and community members to get involved when we are seeking input on proposed initiatives in and around wastewater treatment plants, that may impact or benefit the environment, residents or businesses.

Example: In understanding local market appetite for a new recycled water scheme, local residents and potential customers were able to share their thoughts online and stay up to date on project progress.



Direct mail

We send detailed information directly to customers and communities around wastewater treatment plants to ensure they receive timely information about any construction or maintenance work in and around the facilities that may impact on them. We outline the nature of works taking place, timeframes and contact details for our Stakeholder Engagement team to ask any questions or provide feedback.

Example: While completing maintenance work to concrete structures within a wastewater treatment plant, neighbouring residents received regular updates on the hours crews were working and the movement of concrete trucks in and out of the site.



Website

Our website, sawater.com.au, provides information about our wastewater treatment plants, how we use recycled water and manage our environmental commitments, as well as how we are performing with our sewerage service commitments.

Example: Each quarter our performance against a range of service standards, including overflows within the wastewater network, are published on our website.

Engaging with the community

How we communicate with you

Here are some of the proven methods we use to ensure we maintain an ongoing conversation with our customers and community.



Education

Our dedicated education team works directly with schools and the community to provide learning opportunities about how we operate and how our water and wastewater treatment plants deliver services to South Australians.

As well as interactive excursions and school visits, our education program includes a range of online resources for different age groups.

Example: School and community groups regularly tour our wastewater treatment plants, with sessions aligned to the curriculum.



Media and social media

Where it can help keep customers and the community informed, we engage with local media and use our social media channels to communicate key construction or process changes that affect the community. Social media also provides opportunities for community engagement.

Example: When a wastewater treatment plant experienced challenges managing odour, geographically targeted Facebook messages kept the local community informed.



Face to face

Direct communication in-person with local residents and interested community and stakeholder groups often helps inform our approach to planned projects and works at our wastewater treatment plants, and contributes to our long term investment plans.

Example: Community members in a range of regional centres participated in interactive evening workshops to explore environmental priorities, with their feedback informing the directions of regulatory investment plans.

Reporting

We regularly publish a range of information about our wastewater operations, and report against the service performance standards we set for ourselves and other regulatory requirements.

Environmental obligations

Supported by the Australian Water Quality Centre, our in-house laboratory service, we monitor and report on nitrogen and suspended sediment levels discharged from our wastewater treatment plants to Adelaide's coastal waters. By ensuring we maintain an ongoing, in-depth knowledge of nitrogen and suspended sediment levels we can better manage and control the impact of wastewater on our marine environment.

Nitrogen and suspended sediment levels are reported annually on our website.

Customer service performance

We continually monitor and benchmark our performance to ensure we're maintaining our commitment to provide a great experience. This enables us to drive ongoing improvements in how we service our customers.

We work to a set of service standards that our economic regulator, the Essential Services Commission of South Australia (ESCOSA), has determined based on what customers and the community have told us will meet their expectations.

Our performance against these standards for our sewage service are updated quarterly and published on our website: 'Sewerage service performance scorecard'.

National performance reports benchmark the pricing and service quality of Australian water utilities. Indicators include water resource supply and usage, financial operations, bills and pricing, assets, water quality compliance and customer performance. Published annually and prepared independently by the Bureau, State and Territory governments, and the Water Services Association of Australia.

These are available as reported on **bom.gov.au**

How we reduce and manage potential community impacts

All our wastewater treatment plants are operated under environmental management systems that are certified to the International Standard ISO 14001.

The following table outlines common potential impacts across all our wastewater treatment plant. Additional potential impacts and management strategies have also been identified for specific wastewater treatment plants.

Plant	Potential impact	How we manage it
All*	Most of our wastewater treatment plants discharge treated water into an aquatic environment such as a creek, lake or the sea. Occasionally a treatment process issue may be compromised resulting in discharged water quality being out of specification.	• Implement control measures as soon as we become aware of the process issue. • Follow protocols and procedures to manage and mitigate risks. This may include notification of EPA, SA Health. • Provide timely information in the event of issues impacting the local environment and community.
All	Leaks from infrastructure	• Provide timely information on any impacts to the local environment and community. • Implement control measures as soon as we become aware of leaks. • Investigate and liaise with EPA to notify of progress and remediation work to manage leak and repair infrastructure. • Contingency plans have been developed for this specific issue to reduce the severity and duration of effects on community.
All	Offsite discharge entering watercourses and land due to infrastructure failure	• Local residents, businesses, and councils contacted regarding any potential impacts. The Stakeholder Engagement team will mobilise quickly to ensure this information is made available. • Notify EPA, SA Health Department of Environment and Water of progress and remediation work. • Contingency plans have been developed for this specific issue to reduce the severity and duration of any potential impact.

How we reduce and manage potential community impacts

Plant	Potential impact	How we manage it
All	Work associated with repairing infrastructure that may impact our customers, including: • general construction • increased traffic movement • noise associated with the project	• Provide timely information about upcoming construction activities that may impact residents and local businesses through the distribution of letters. • Ensure prompt identification and resolution of potential issues or concerns. • Provide opportunities for two-way communication between us and our customers throughout the duration of a project or works.
All	Potential odour, noise and overflow into the local environment resulting from operation of the plant	• Provide timely information in the event of odour, noise or overflow issues that affect the local environment or community. • Ensure prompt identification and resolution of potential issues or concerns. • Notify EPA and SA Health.
All	Odour caused by planned trials	• Inform the community ahead of time about trials and potential odour impacts. • Manage trials to reduce the risk of odour and noise on community.
Christies Beach and Aldinga	Annual total nitrogen discharge load to marine waters is greater than 100 tonnes from the northern and southern outfalls Environmental issues due to long-term irrigation: groundwater contamination, reduced crop yield, toxicity	• Manage the plant to ensure we meet our discharge load requirements. • Ensure our recycled water management plans are followed.

How we reduce and manage potential community impacts

Plant	Potential impact	How we manage it
Bolivar	Midges (insects) Dust coming from unsealed roads within the plant and stockpiles Environmental issues due to long-term irrigation: groundwater contamination, reduced crop yield, toxicity	• Midge fly management plan in place, including a vegetation screen designed to minimise the number of midge flies moving outside the boundary of our plant. • Water down the road on dry days to minimise dust. • For odour and midge issues, we communicate regularly with impacted community members. • Ensure our recycled water management plans are followed. • Provide up-to-date information in the event of issues impacting the local environment and community.
Angaston	Asbestos contamination	• Follow asbestos management protocols and procedures to manage and mitigate risks. • Communicate with council and residents about risks and processes in place to ensure community safety.
Heathfield	Noise caused by movement of trucks	• Follow internal management protocols and procedures to manage and mitigate noise risks. • Provide information to local residents prior to planned heavy truck traffic and noise issues.
Mannum	Environmental issues due to long-term irrigation: groundwater contamination, soil impacts, toxicity Surface irrigation runoff to the River Murray Lagoon seepage to River Murray	• Ensure our recycled water management plan is followed. • Work with recycled water user to best manage irrigation. • Monitor lagoon for potential lagoon seepage.

How we reduce and manage potential community impacts

Plant	Potential impact	How we manage it
Millicent	Discharge to drain Blue-green algae	• Provide advice and information to local community. • Follow internal management protocols and procedures to manage and mitigate risks.
Myponga	Leakage into water supply reservoir	• Manage the site to minimise any risk of overflow. • Provide information in the event of leakage issues impacting the local environment. • Work with SA Health to minimise risks to water quality and public health.
Naracoorte	Overflow to creek	• Follow internal protocols and procedures to manage and mitigate risks. • Provide timely information in the event of overflow issues that impact the local community and environment.
Normanville	Overflow to creek	• Follow internal protocols and procedures to manage and mitigate risks. • Provide timely information in the event of overflow issues that impact the local community and environment.
Port Augusta West	Discharge to Lake Dempsey (Aboriginal heritage) Asbestos contamination	• Maintain a relationship with local Aboriginal communities to inform them of our operations and processes to avoid discharge and contamination. • Follow internal protocols and procedures to manage and mitigate risks. • Communicate with council and nearby residents on risks and processes in place to ensure community safety.

How we reduce and manage potential community impacts

Plant	Potential impact	How we manage it
Whyalla	Overflow Lagoon seepage	• Provide information in the event of leakage issues impacting the local environment. • Follow internal protocols and procedures to manage and mitigate risks.
Wirrina	Lagoon seepage	• Provide information in the event of leakage issues impacting the local environment. • Follow internal protocols and procedures to manage and mitigate risks.

*The following plants do not discharge into a water course or marine environment: Brinkley, Gumeracha, Leigh Creek, Mannum, Mt Burr, Nangwarry, Normanville and Wirrina.

Our community engagement priorities

Over the next 18 to 24 months, we will be implementing our engagement plan to gather insights that will inform priorities for our wastewater treatment services, including:

- Determining key community stakeholders for each wastewater treatment plant
- Engaging with them in meaningful ways to determine and prioritise key issues
- Conducting further community engagement around selected projects through our key engagement methods
- Ensuring community expectations for our wastewater treatment plants are clearly represented in our regulatory business proposal.

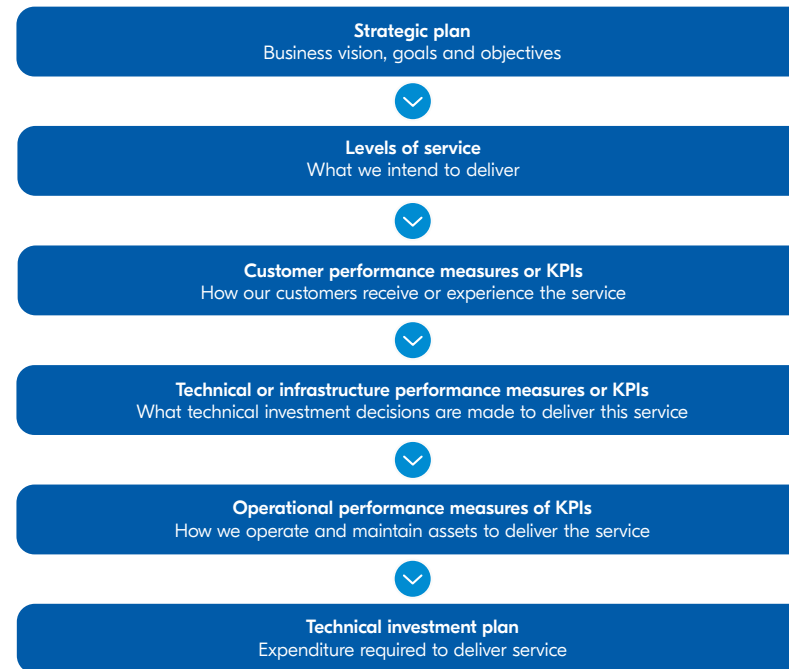
Our community engagement priorities will then be developed further to reflect customer and community feedback.



Customer and community feedback shapes our business

The insights and feedback we collect while engaging with our customers and communities, helps shape our business plans and the ways we operate. From our organisational strategy to our service levels and investment plans, continually seeking and understanding community feedback ensures our approach is aligned to customer and community expectations now and into the future.

Line of sight model - organisational objectives through to operational performance measures



Determining how we deliver our customer services

We set performance measures and levels of service that connect our strategy with the customer outcomes we commit to delivering.

Levels of service are developed based on:

- our customers' expectations and feedback
- legislation, including acts, regulations, standards and codes of practice
- business requirements, including corporate strategies, plans, policies and approaches.

Levels of service

There are three performance measures against which we set levels of service:

1. Customer measures — how a customer receives or experiences the service provided, for example: how often an incident occurs and impacts them

- how quickly the incident is attended
- how quickly their service is restored the quality of the service they receive.

2. Technical measures — these underpin our investment planning and are based on:

- minimising the loss or reduction of product or service due to underperforming assets.
- minimising the loss of product or service quality.

3. Operational measures — these summarise the operational objectives to support delivery of the technical performance measures.

How to contact us

You can contact us at any time if you have questions or concerns about our wastewater treatment plants or associated projects.



1300 SA WATER
(1300 729 283)



customercare@sawater.com.au



Webchat: www.sawater.com.au
(8:30am to 5:00pm
Monday to Friday)

How to engage with us

If you would like to provide feedback or input into our projects or the operations of our wastewater treatment plants, we'd like to hear from you.

You will find all projects currently seeking community input at **watertalks.sawater.com.au**.



Here you can gain insight into our plans and provide direct feedback.

