



At TRILITY we make it our business
to understand and support yours

A large, dynamic splash of water in shades of blue and white serves as the background. A central rectangular area is overlaid with a vibrant green color, matching the TRILITY logo. The text "Water quality" is centered within this green area in a white, sans-serif font.

Water quality



TRILITY’s water quality team is embedded in its operations, ensuring the production of safe, high-quality fit-for-purpose water. Consistently meeting client and consumer needs, and state-specific regulatory requirements - our passionate team of water quality experts specialise in drinking water, recycled water, wastewater and biosolids.

Production of
1.8 GL/d
of safe, high-quality water

100%
treated water contract compliance

TRILITY works hand-in-hand with clients and water authorities to develop, implement, and operate comprehensive water quality management systems that comply with:

- Australian Drinking Water Guidelines
- Drinking-water Standards for New Zealand
- Environmental Protection Acts
- State regulation and legislation
- Wastewater and recycled water quality requirements
- Biosolids regulations

As an experienced water and wastewater operator, awareness of the importance of public health and water quality management is firmly embedded in our culture. TRILITY takes pride in the knowledge that our people consider it their personal responsibility to ensure the water produced, and the way we produce it, complies with all legislated and client requirements.

Our expertise

Our water quality team has many years of operational experience in water and wastewater treatment processes and associated analytical techniques. Our expertise comes from continuously updating and upskilling our experts and staying abreast of the latest regulations, guidelines, and best practices.

Every day we produce high quality, safe drinking water. TRILITY also treats 200ML of wastewater per day and the water quality team is responsible for improving the quality of the treated water discharged to the environment.

We have the skills and experience to perform independent audits, bringing you peace of mind that your plants will pass a statutory audit.

TRILITY’s expertise is further enhanced by collaborating with our clients and leading Australian universities on research and development activities that improve our water quality knowledge and optimise our treatment processes.

Our markets

- Agriculture
- Food and beverage
- Manufacturing
- Municipal
- Recreational
- Water utilities



We strive for the continuous improvement of the water treatment process and the quality of the treated water discharged to the environment. Working with our clients, we develop efficient and cost-effective systems to ensure we produce safe and secure water and wastewater services to best serve our clients and their communities.

Our services

The water quality team has the agility to provide operations support including:

- Closely monitoring water quality
- Reporting compliance and meeting health-based targets
- Taking a holistic view of the entire treatment process
- Timely notification of drifting performance - allowing site operations to take appropriate actions to maintain water quality
- Developing training modules for site-specific treatment processes, legislation, water quality management systems, and laboratory practices
- Performing water quality risk assessments and audits to identify and quantify water quality risks and implement actions to minimise their impact

We also provide a range of tailored services and advice including:

- Water and wastewater system audits
- Developing and reviewing Drinking Water Quality and Wastewater Management Plans
- Annual regulatory reporting
- Onsite or desktop risk analysis
- Water quality risk assessments (from catchment to tap)
- Water treatment plant assessments against Health Based Target (HBT) manual, Good Practice Guide (GPG) and the Australian Drinking Water Guidelines (ADWG)
- Reviewing sampling programs
- Verification and review of critical control points and critical limits

The importance of public health and water quality management is firmly embedded in our culture.

We manage water quality across more than 65 sites consisting of:

- Water treatment plants
- Wastewater treatment plants
- Recycled water plants
- Desalination plants
- Biosolids facilities

We work collaboratively with our clients, and together we adopt a risk-based approach to managing water quality from catchment to tap.

Manages water quality across
65+
water treatment facilities

100 GL pa
desalinated water supply

0
EPA non-compliances



TasWater Regional Towns Water Supply Program

TasWater’s Regional Towns Water Supply Program was implemented to remove Public Health Notices across regional towns in Tasmania.

TRILITY designed and built eight water treatment plants, using a modular solution to suit each town’s specific needs. One such town was Rossarden, whose residents can now turn on their tap and get a glass of water that is safe to drink.

Moreover, the dedication of TRILITY’s water quality and operations teams, and their push for continuous improvement, resulted in Rossarden going from removing public health notices to being voted the best tasting tap water in Australia.

Winner Best Tasting Tap Water Australia 2020
Best Tasting Municipal Water in the World 2021



Riverland Water Project

TRILITY is the operator for Riverland Water’s 10 water treatment plants that serve approximately 150,000 people living in over 90 communities.

TRILITY’s water quality and operations teams work collaboratively to treat the ever-changing water quality of the River Murray to supply high quality, safe drinking water to more than 90 regional communities in South Australia. The team continues to meet stringent water quality targets as required by the Australian Drinking Water Guidelines (ADWG). We implemented a number of continuous improvement initiatives, such as the extensive granular media filter refurbishment program which includes artificial-intelligence based optimisation tools to ensure the continued high performance of the Riverland plants for many years to come.

Winner Best Tasting Tap Water South Australia 2019



Macarthur Water Filtration Plant Upgrade

The optimisation of filter backwashing practices decreased production, which also resulted in reduced electricity costs.

The water quality team investigated the effect of different filter backwashing techniques and operating procedures on filtrate quality and filter performance and efficiency. The study identified optimal backwash practices, which resulted in a decrease of backwash water production by an average of 437 megalitres per year. This decrease in effluent reduced the electricity costs associated with processing the backwash by 32%.

Artificial intelligence chemical dose recommendations and cloud analytics have been deployed to further improve water quality and process performance, future proofing our operations.

\$20k savings pa Realised by optimising backwash practices



Grampians Water Operations and Maintenance

TRILITY’s water quality management system allows the operator to access information on plant performance and generate compliance reports

TRILITY operates and maintains four water treatment plants for Grampians Wimmera Mallee Water.

Operators have benefitted from the development of a water quality management system to receive internal and external laboratory data, which is presented and visualised to the client through data analytics platforms.

Compliance reporting



Predictive analytics software designed to maximise efficiency of water and wastewater operations



KOIOS DatalytiX is a modular, cloud-ready solution that can be adapted to your specific operational goals:

Aer+ Optimiser
Wastewater aeration optimiser

Wastewater aeration optimiser

Smart aeration, energy management and greenhouse gas reductions for wastewater operations

ChemDose+ Optimiser
Chemical dose optimiser

Chemical dose optimiser

Predictive dose optimisation for water treatment, saving time and money

Demand+ Manager
Network demand prediction

Network demand prediction

Demand forecasting to reduce supply risk and save energy costs

Filter+ Optimiser
Filter health monitor

Filter health monitor

Smart filter optimisation to reduce waste streams and improve backwashing

Stock+ Manager
Chemical stock manager

Chemical stock manager

Real-time stock assessment to reduce supply risk and improve chemical handling

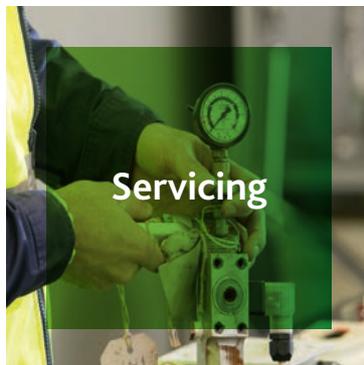
Vantage+ Scorecard
Smart compliance manager

Smart compliance manager

Automated compliance monitoring to meet and exceed regulatory guidelines, saving time and money

At TRILITY we make it our business to understand and support yours. We are an Australian and New Zealand company committed to being a 'partner of choice' in the delivery of water, wastewater and environmental services.

Supported by our front-line operators, service technicians and dedicated group of water quality professionals; together we deliver safe and efficient water and wastewater services, with a vision to be the most respected in our field.



Audits



Biosolids



Data analytics



Irrigation



Preventative maintenance



Seized valves



Training



Wastewater treatment



Water treatment

Read more at trility.com.au



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