



WATER & WASTEWATER REUSE

AQUATEC



Aquatec's Water and Wastewater Reuse systems are designed on a project-by-project basis to provide a tailored solution that exceeds local regulatory requirements.



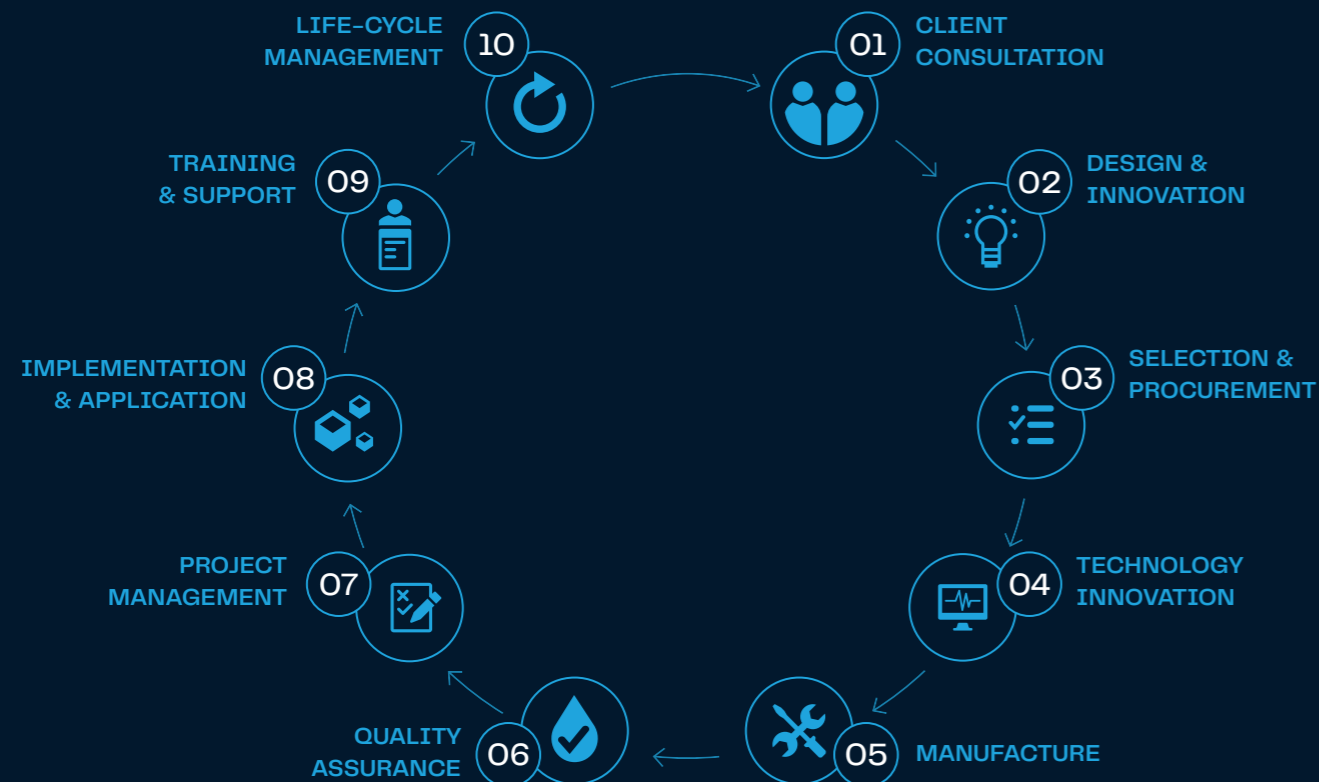
Design and Construction

Our end-to-end service model streamlines the time and costs associated with managing multiple suppliers to deliver a superior level of quality control.

Consultation, detailed design, project management and ISO 9001:2008 manufacturing processes produce quality outcomes purpose built to your exact specifications.

Aquatec manages the installation compliance and commissioning process to deliver a fully functioning Water and / or Wastewater Reuse system. Supported by accredited operation and maintenance training, after sales service and market leading product warranties.

OUR END-TO-END PROCESS



Detailed Design

Aquatec's product designs have achieved benchmark status with State and Territory Governments, Local Water Authorities and Councils.

We have built strong relationships with water authorities to secure fast approvals. We maintain regular contact to stay up to date with their regulations, policies, procedures, and guidelines. This ensures that our submissions comply with all requirements and include complete documentation. We promptly address any concerns or queries from the authorities, listen to their feedback, and implement their suggested improvements to meet their standards. Our success is based on this methodology and our commitment to transparency.

HYDRAULIC DESIGNS

Aquatec takes an unbiased approach to hydraulic design to maximise pump efficiency and product longevity. Calculated in accordance with Water Authority requirements and the WSSA sewerage code. Aquatec works closely with our clients to deliver expert knowledge across flows, friction loss, static lift, atmosphere, pipe sizing and air locks. Where required, Aquatec also provide Water Hammer Analysis for the system.

DESIGN & DRAFTING SERVICES

Aquatec works closely with our clients to deliver expert knowledge across flows, friction loss, static lift, atmosphere, pipe sizing and air locks. Where required Aquatec also provide Water Hammer Analysis and modelling for the system.

Aquatec's Design & Drafting Services deliver a full set of drawings customised to meet the unique needs of your project. Aquatec offer full detailed design in 2D & 3D CAD. Our Technical Consultants work closely with our clients to establish a detailed understanding of site conditions to determine Pump Station size, flow rate, head pressure, storage and odour requirements, combined with layout solutions.

KEY OPTIONAL ACCESSORIES

Expert guidance across Australian Standards, WSAA and WHS regulations together with recommendations on the latest global innovations combine to deliver a customised solution for the long-term.

Aquatec offers a wide range of Optional Accessories to meet or improve your project specifications. Our Technical Consultants will make recommendations for enhancements to your Water and / or Wastewater Reuse system based on budgets and the unique demands of your application.

Key Optional Accessories include:

- Fibreglass Storage Vessels
- Lighting (internal / external)
- Flow Meters (separate pits available)
- Inlet Valves
- In Series Pumping
- Odour control

Government and Industry Bodies regularly consult with Aquatec for guidance on best practice product development and safety standards.

System Integrity

Our product designs have received recognition from WHS Industry Bodies, Water Authorities and Councils for setting new standards in environmental risk management, safety and serviceability.

For the past 30 years, Aquatec's commitment to product integrity has remained central to our daily operations. As industry leaders, our products are engineered to safeguard against environment leaks and spills and provide consistent water quality.



MANUFACTURING PROCESS

Aquatec's Water and Wastewater Reuse systems are manufactured in a controlled factory environment under strict ISO 9001 : 2008 standards. Proprietary Storage Tanks are stringently tested and certified prior to delivery.

QUALITY CONTROL

Aquatec's manufacturing process is subject to a series of strict quality control measures to achieve superior product quality. Every system is factory pretested under simulated site conditions prior to dispatch:

- Critical path hold points
- Pressure tested
- Engineer's review
- Pre-delivery performance
- Transportation

WHY WE TREAT

Water and Wastewater Reuse systems reduce demand on potable water supplies and contribute to a sustainable, forward thinking approach to water management and conservation.

Aquatec's reuse systems recycle stormwater, rainwater or process water to generate alternative supply for municipal or industrial reuse, or any instance where secondary water is deemed a suitable alternative to potable water.



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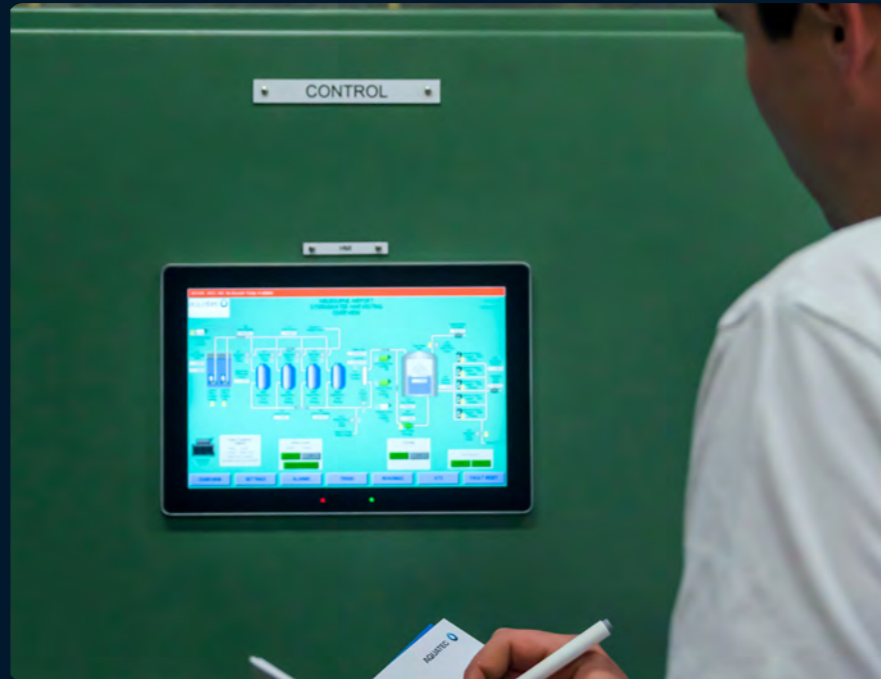


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WATER & WASTEWATER REUSE

System Configuration

To develop solutions configured for efficiency, compliance and sustainability, Aquatec assists our customers with a comprehensive approach to complete system designs.



SYSTEM DESIGNS

Water source, flow, quality and distribution underpin the design of Aquatec's Water and Wastewater Reuse systems. Together with a thorough understanding of existing site infrastructure and local requirements, our systems are developed to service any municipal or industrial demand.

MECHANICAL DESIGN

Aquatec manufactures world-class components and innovations to build systems with environmental integrity and operational longevity. Location, spatial constraints and surrounding infrastructure are central to Aquatec's mechanical designs, with every solution purpose-built and tested prior to installation.

ELECTRICAL DESIGN

Aquatec's approach to electrical design is responsive to the unique make-up of the treatment train. Our control panels are purpose-built to Water Authority or Council specifications and exceed AS3000 requirements.

Water Reuse

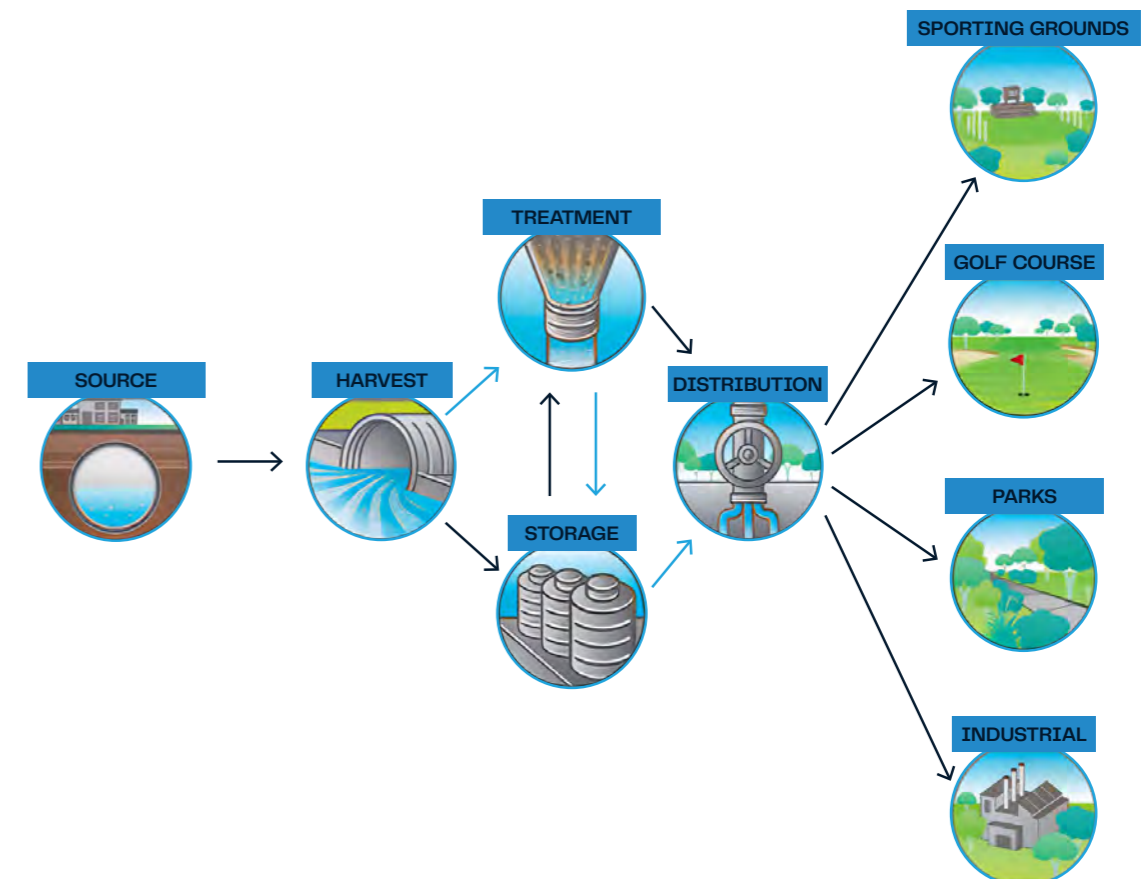
Aquatec harvests water or wastewater for reuse across municipal, industrial and private developments.

The water is captured at the source, then treated, stored and distributed, reducing use of potable water across areas where recycled water presents as an economically viable, environmentally friendly water management solution.



STORM WATER HARVESTING

The infographic below demonstrates the process of storm water harvesting and how this resource can be captured and redistributed for the benefit of the environment and surrounding community.





Treatment Options

Aquatec's treatment processes are governed by the quality of the water source and the grade of water required prior to distribution.

Our treatment processes will vary based on pollutants identified after client research, industrial, commercial or industrial contaminants present in the water source and the intended site(s) for water reuse.

POLLUTANT REMOVAL

A gross pollutant trap is selected based on the nature and size of gross pollutants and coarse sediments presenting in the water catchment area.

SEDIMENT REMOVAL

Screen or Multi-Media Filters are selected based on the nature of medium and/or fine particle sediments present in the water or wastewater.

ODOUR & COLOUR REMOVAL

Various media and other treatment filtration processes are used for colour and odour removal, sensitive to the intended application and associated requirements.

STERILISATION

UV treatment of water or wastewater provides high quality sterilisation, with the ability to adjust UV intensity according to intended application for re-use.

DISINFECTANT

Chlorine Dioxide, Liquid or Gas Chlorination, Ozone or other treatments build the residual to a predetermined level that is maintained prior to distribution.

Environmental Social Governance (ESG)

Protecting the planet is no longer a choice, but an obligation.

We are committed to taking a sustainable approach to our operations, projects, and business practices to create the best long-term outcomes for our clients, investors, communities, and partners.

We have implemented an Environmental, Social, and Governance (ESG) plan that touches all areas of our business from the way we work, to our governance structure, our people, partners, clients, and the communities where we work.

As a holder of ISO 14001 certification, Aquatec is committed to reducing our impact on the environment and improving sustainability measures in all aspects of our products and services.

We strive to be sustainable leaders, constantly learning better ways to be more efficient. We have applied Key Performance Indicators (KPIs) to ensure that we maintain our focus and contribution to a sustainable future and our impact is positive and productive.

LIFE CYCLE ASSESSMENT FOR THREE AQUATEC PRODUCTS

As part of our commitment to creating a better future for all, we commissioned a Life Cycle Assessment (LCA) from Independent ALCAS LCA Certified Practitioners, Perspektiv, to provide insights into the impacts of our precast and fibreglass pump stations, maintenance holes, storage vessels and an alternative in-situ concrete systems, along their life cycle stages.

The insights consider the whole value chain, looking into the greenhouse gas emissions hotspots, as well as other life cycle impact categories such as fossil fuel, minerals and metals resource use, water use, particulate matter, ozone depletion, photochemical ozone formation, acidification, eutrophication, human toxicity and eco-toxicity.



Health Safety Environment & Quality (HSEQ)

Aquatec incorporates advanced safety features into the design of every water reuse system to ensure the safety of installation and maintenance personnel. By incorporating external maintenance and access methods, our product designs have significantly lowered the risks of accidents.



MAINTENANCE ACCESS

Our water reuse systems are designed to make serviceable and maintainable items accessible and removable with minimal effect on the overall system operation. Dismantling joints and thought-out product placement allow most items to be removed through local isolation without the need to isolate the entire system.

FIT FOR PURPOSE PUMP ROOMS

Complete pump rooms can be included in the design of water reuse systems. We ensure these rooms meet ventilation and acoustic standards by performing thorough noise and ventilation assessments.

ENGINEERED LIFTING POINTS

Aquatec provides Rated Lifting Points in each water reuse system to ensure safe installation and removal of components as required.

Safety Accessories

Aquatec's optional safety accessories, supplied in accordance with WHS standards, offer added safety protection for maintenance personnel.



LIFTING DEVICES

Aquatec offers a range of Lifting Devices to enable safe pump removal for maintenance personnel in accordance with WHS requirements, including monorail and swivel gantry cranes.

ACCESS LADDERS & LANDINGS

Access ladders and landings are incorporated into Aquatec's product designs where access to equipment is above a safe working height. Our technical consultants can advise you on safe landing heights and sizes in accordance with WHS requirements. Access ladders and landings are available in 316 stainless steel, galvanised, powder-coated, or glass-reinforced plastic. Our ladders are available with non-slip knurled rungs for added safety protection.

FIRE SUPPRESSION

Aquatec offers internal and external fire suppression systems for water reuse pump stations. These systems are useful when the pump station is located in a high-risk fire area.

EQUIPMENT SUPPORTS

We design and supply engineered support systems for all equipment, including, but not limited to, pump sets, pipes, manifolds, valves, and instruments. This proactive approach improves the overall safety and durability of the equipment.

At Aquatec, we pride ourselves on continually developing innovative water, wastewater and odour control solutions.

After Sales Service

Maintenance Training

Aquatec's Maintenance Training caters for existing personnel in need of additional assistance or new personnel unfamiliar with the operational and maintenance requirements of our Water and Wastewater Reuse systems.

Technical & Product Support

Aquatec's Technical and Product Support Service responds to any product or technical enquiry, including recommendations on safe-use of our products.

Service Warranty

Aquatec are committed to providing full after sales service, support and long term warranty on all components and workmanship.

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