

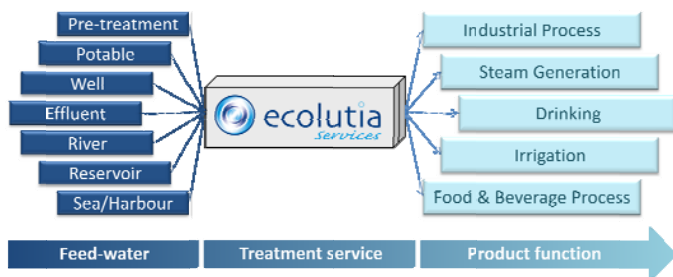


# Long-Term Outsourcing Water Treatment

## Overview

Ecolutia Services operates the world's most efficient fleet of mobile water and wastewater treatment systems. Industrial and municipal customers trust our 24-hour, 365 days per year service for emergency, short-term or long-term use. We solve critical water issues such as overcoming water scarcity and plant start-ups, through to providing total water provision.

Whether you require a new water or wastewater treatment plant or wish to refurbish an existing plant, our long-term outsourcing service can help. Based on variations of the Build, Own, Operate, Maintain (BOOM) concept these robust, flexible and sustainable solutions also include plant Design and Transfer options. Typically, the long-term agreements operate for 1-15 years and we can assist with a flexible financial package to bring your project to life. Together, by reviewing all turnkey options we can develop a bespoke solution suited to your long-term needs.



Feedwater and Product Water Profile

## Dynamic Solution

Long-term outsourcing is a beneficial option giving you water security through a trusted and knowledgeable partner. This versatile solution offers a complete operational service while eliminating your capital outlay for the purchase of the new plant and your ongoing operational costs. Traditionally, such assets appear on your balance sheet, but can now be treated as another operating expense, rather than an internally funded and managed capital project.

A number of additional benefits make outsourcing an attractive concept and a way to overcome difficulties you may be encountering at your site. These benefits include:

- Meeting changing environmental regulations
- Total water management and increased efficiency
- Range of technologies and project provision options
- Reduction in overall annual operational costs
- Fixed cost of service over life of project
- Guaranteed treated water production output
- Multi-layer back-up for security of water supply
- Eliminate potential of unforeseen costs or risks

## Total Water Security

Our team is at the forefront of outsourced water and wastewater treatment projects. Carved from over 20 years of knowledge and global field operations, the industry leading cleantech solutions incorporate a flexibility to accommodate

individual site requirements whilst adhering to best industry practice.

The objective is your total water security. Therefore, long-term operating parameters are calculated to match site quality and volume requirements. This ensures, the installed systems continue to operate within a profile of likely conditions. By taking a forward-looking approach we ensure water production always remains in concert with your activities, as your business develops and grows.

Notably, our fleet of mobile water treatment systems offer an additional level of security. The 24-hour back-up fleet is deployable at short notice to aid or supplement water production in the event of an unexpected change in your operations. This multiple layer of project management ensures flexible operations while maintaining security of supply and providing you with a complete 'hands off' solution.

## Cleantech Technologies

To combat the growing problems of water stress and water scarcity all projects undertaken incorporate a cleantech ethos. Our philosophy is to act responsibly as we believe water security and water efficiency are mutually achievable objectives. Alternative sources of feedwater are analysed to reduce impact on local freshwater supplies.

With water and wastewater feeds varying significantly across the globe, the most suitable technology is used to achieve the most efficient results. Through the long-term agreement, we can upgrade the plant after an agreed period to the most efficient technology available. Currently, to find solutions for your project the following technologies are utilised:

- Multi-media pre-treatment
- Ion exchange (IX)
- Ultra-filtration (UF)
- Reverse Osmosis (RO)
- Electrodeionisation (EDI)
- Gas Removal

The building blocks for our solutions are our standardised technology packages. These in-house developed solutions provide you with an industry leading output and environmental performance.

**Triton Series** – This family of reverse osmosis systems is designed to treat brackish and seawaters across the globe.

The seawater system treats water up to 45,000 TDS and produces up to 1440 m<sup>3</sup>/d (~380,000 GPD) of freshwater for a

## Waters Treated

Seawater, Potable, Well, River, Lake, Reservoir, Contaminated, Partially treated, Food process, Industrial process, Industrial wastewater, Municipal, Municipal wastewater

number of applications. The brackish water reverse osmosis system operates on waters up to 10,000 TDS and produces up to 1560 m<sup>3</sup>/d (~410,000 GPD) of water for use in any process.

**Proteus Series** – This is a family of multi-media solutions, custom loaded for a number of treatments, including demineralisation, filtration, softening and condensate polishing. Based on the application, this system can produce up to 7200 m<sup>3</sup>/d (~1.9 MGD) of treated water.

**Voltrunus Series** – This is our range of EDI systems with integrated softening and gas removal technologies to provide purification up to ultra-pure levels. The system can produce up to 1200 m<sup>3</sup>/d (~315,000 GPD).

## Operation & Maintenance

As your project partner, we take on all operational and maintenance risks, giving you confidence in the production availability of the plant. Its reliability and efficiency are no longer a worry for you; rather you can dedicate your resources to core business activities.

Our team of Field Service Engineers (FSE) operate and maintain the plant. They are all science or engineering university graduates and are trained in water chemistry, plant operation and troubleshooting. As a single point of contact, the lead FSE will develop regular communication with your team on-site to ensure a good working relationship.

To provide additional support, our technical team is on-call 24-hours a day and are in daily contact with the field-based team. Remote monitoring and performance data logging permit remote analysis, which enhances certain automated features of the plant. This facility also allows a number of operational changes to be made remotely, if necessary.

Furthermore, for each project a 'Project Execution Plan' (PEP) is prepared to ensure clear definition of project goals, operational continuity and standardised operating procedures. This is available to the technical and field based teams involved in your project.



For a secure treated water supply contact Ecolutia Services