VEOLIA

Resourcing the world

Australia & New Zealand

WATER TECHNOLOGIES

Who we are

Veolia Water Technologies provides water and wastewater treatment solutions to private and public sector organisations throughout Australasia.

At Veolia, we draw on comprehensive and advanced international expertise, covering areas such as water chemistry, water reuse and desalination.

Focusing on long-term business outcomes, we support our technology with highly skilled teams and offer flexible contract models creating business synergies.

We specialise in compact, highly cost effective solutions that minimise demands on your capital and operational budgets.

We excel at providing cost-effective solutions to particularly challenging problems, drawing on a comprehensive range of Veolia technologies and services.

We work across all sectors that require water and wastewater solutions.

Providing innovative technological solutions and service for our customers

Design & build of water treatment plants

- Design, construction and commissioning of projects on every scale with individually tailored processes and technological solutions
- Focusing on reducing operating costs and improving flexibility, reliability, environment protection and safety

Packaged plants & skid systems

- We offer a range of turnkey packaged plants and skid systems to provide efficient & cost effective solutions with short turnaround times
- Easily integrated on sites with space restrictions
- Mobile water services: leasing of mobile units and pilot plants

Service and maintenance

Our customers benefit from the highest possible levels of service and support throughout the long life of our water treatment systems and equipment. We can provide:

- Hydrex® water chemicals, spares and consumables
- Service and maintenance agreements
- Chemical service agreements
- Technical consultation including audits, plant refurbishments and upgrades

Our Customers

Veolia Water Technologies draws on market-leading technologies and processes to respond to diverse client water treatment needs.

We work with water authorities, councils, municipal and industrial customers - Mining, Oil & Gas, Power, Food & Beverage, Healthcare, Pharmaceuticals, etc - to deliver high quality drinking water, process water and advanced wastewater solutions.

Leveraging value for clients

Access to cutting-edge technologies and best practices around the globe allows us to deliver cost-effective, creative solutions. We are experts in reusing, recycling and leveraging value from water - for example, by converting sludge into biogas. Amongst our latest developments: producing bioplastics and fertilisers from biosolids.

Delivered value

Specialised knowledge of each industry segment enables us to apply technologies specifically adapted to each client's needs. We know how to leverage value from water and wastewater resources at all scales, from the upgrade of a small lab to a turnkey design & build project. Our global network of 135 business units underpins our fast response capability and the implementation of locally-appropriate solutions.

Stakeholder-responsible

We help respond to increasing pressure for sustainable solutions. We are experts in reusing, recycling and extracting value from water and wastewater resources. Our innovative water and carbon footprint initiatives permit clients to measure and reduce their ecosystem and resource impact, ensuring compliance and saving money.

Our community responsibility

As our clients' full partner, we help respond to stakeholder expectations for sustainable solutions that contribute to improved quality of life. Our water and carbon footprint initiatives help clients measure and reduce their environmental and resource impact. We also contribute to the community by fostering local employment and being an engaged corporate citizen.

Our Technologies

Actiflo®

Compact, high performance water clarification system combining the advantages of microsand enhanced flocculation with fast lamella clarification, particularly suited for high turbidity water

Discfilters

Tertiary treatment capable of producing effluent with both low turbidity and low total suspended solids. Discfilters are utilised in treatment plants primarily for effluent polishing

Neosep®

A new generation membrane biological process, the Membrane Bioreactor can produce high quality recycled water from industrial or municipal wastewater

MBBR™

Leading-edge biological solution for wastewater treatment, the Moving Bed Biofilm Reactor combines the advantages of activated sludge & fixed biofilm systems. The biofilm attached to a carrier achieves high BOD, organic & nitrogen pollutant removal

Ultrafiltration

Membrane filtration range, including ultrafiltration, microfiltration and nanofiltration

Key features: robust proven technology, barrier filtration (ideal for reuse applications), low cost, small footprint

Ecodisk®

Biological effluent treatment system that adapts automatically to load and hydraulic variations

Designed for small rural or semi-urban communities

Reverse Osmosis

A membrane process used extensively for removing salt from seawater or brackish water and even dissolved contaminants from sewage

Key features: robust proven process technology, small footprint, easy to operate

Ion Exchange

A packaged or individually tailored solution ideally suited for ultra pure water for boiler feed

Key features: low operating costs, small footprint, efficient chemical usage

MetClean™

A process capable of removing heavy metals (arsenic, cadmium, lead, zinc, nickel, iron, manganese, arsenic, uranium, etc.) from different types of water, including industrial wastewater

Evaporation & Crystallisation

A comprehensive range of evaporator, brine concentrator and salt crystalliser systems offering a complete produced and wastewater treatment solution, including volume minimisation, salt recovery and Zero Liquid Discharge (ZLD) options

Memthane®

Anaerobic Membrane Bio-Reactor which maximizes renewable energy production while producing superb quality effluent that can be reused or discharged directly to sewer. It delivers a unique, small footprint solution that offers an array of benefits, reducing disposal costs while generating valuable biogas

Expanded Granular Sludge Bed

An anaerobic process based on granular sludge

Applicable for wastewater relatively low in suspended solids and wastewater from a chemical nature which require high recirculation rates for stable process performance

Ceramem®

Ceramic membrane modules with exceptional performance for microfiltration and ultrafiltration applications. Suitable for harsh operating industrial applications including de-oiling and silica removal from oilfield produced water desalter bottoms de-oiling, etc

Exelys™

Better performance than a conventional digestion

Optimises sludge treatment by producing 25 to 35% less dry matter, 30 to 50% more biogas, no odours and a pasteurised digestate, for control over the sanitation hazards and safe agricultural reuse

Solia™

Under the effect of solar radiation and the action of an automated windrow turner (SOLIAMIX), water evaporates from the sludge for subsequent removal from the greenhouse by a powerful air draft. Reduces the amount of sludge, limits transportation and treatment costs

Spidflow™

A new generation of rapid and compact flotation units that can produce high quality drinking or process water

It is an optimised solution for the treatment of surface water containing low density particles, algae and floating matters (greases and oils)

Idraflot™

Very compact rectangular flotation units which are easily transportable, entirely in stainless steel

These units attain high thickening and clarification grades to efficiently optimise removal of COD, suspended solids and fat

Hydrex®

Complete range of specialty water treatment chemicals for boiler & cooling water systems including legionella control, reverse osmosis antiscalants, biocides, cleaners, inhibitors, dispersants and polymers

Case Studies

Recycling treated wastewater for industrial reuse

Fairfield Recycled Water Scheme for Sydney Water Corporation, NSW

Design, build, own and operate (20 years) of a water recycling plant to treat municipal wastewater for reuse by local industry (NSW WICA license)

- Capacity: 20 Megalitres/day
- Process: ultrafiltration and reverse osmosis treat secondary effluent from the Liverpool Sewerage Treatment Plant
- Application: the plant produces 4.3 billion litres a year (upgradable to 7.3 billion litres) for reuse by major industrial and commercial customers, effectively reducing demand on drinking water supplies

Treat wastewater (sewer mining) for a commercial development

Darling Quarter Recycled Water Plant, Darling Harbour, Sydney, NSW

Design, build and support for a recycled water plant, to treat 245 kL/day of sewage (sewer mining)

- Capacity: 166 kL/day (60 ML/year)
- Process: MBBR™, UF, reverse osmosis, UV and chlorination
- Application: produce high quality recycled water for cooling tower make up, garden irrigation and toilet flushing
- Veolia Water Technologies was awarded a NSW WICA license for this project

Providing safe drinking water through microfiltration of raw water

Three Villages Water Microfiltration Plants, Wauchope Water Treatment Plant and Port Macquarie Reclaimed Water Plant for Port Macquarie Hastings Council, NSW

Design and installation of 4 water filtration plants, using continuous submerged microfiltration and a water reclamation plant at Port Macquarie using reverse osmosis

- Total capacity: 9.3 Megalitres/day upgradable to 22.3 Megalitres/day
- Application: the 4 water filtration plants produce high quality drinking water (8.3 Megalitres/day) and the reclaimed water plant treats tertiary effluent using ultrafiltration, reverse osmosis, UV disinfection and chlorine to provide an alternative source of water for agricultural and playing fields irrigation (1 Megalitre/day)

Providing high quality drinking & demin water for remote sites

Desalination Plants for Woodside's North Rankin A and North Rankin 2 Redevelopment Project offshore platforms, WA

- North Rankin A: Design and build of a Sea Water Reverse Osmosis (SWRO) plant providing high quality drinking water for employees. Ongoing service and maintenance for the offshore platform. Capacity: 70 m^3/day
- North Rankin A Upgrade: Design and supply of a 180m^3/day Sea Water Reverse Osmosis (SWRO) plant
- North Rankin 2: design and supply of a brackish water reverse osmosis plant, treating potable water from the North Rankin A SWRO unit to produce demin water with low chloride levels for the tempered water system. Capacity: 120 m^3/day

Treating contaminated water for industrial reuse

Water Desalination Package (Upstream-GLNG Project) for Santos, Gladstone, QLD

Design and supply of the water desalination package for the Santos GLNG Upstream Project

- Capacity: 20 MLD (Fairview) + 10 MLD (Roma)
- Process: Actiflo® turbo high concentration sludge, multimedia filters, ion exchange (weak acidic cation), reverse osmosis and sludge handling
- Application: treat produced Coal Seam Gas associated water at Fairview (TDS ≈ 5,000 ppm) and Roma sites (TDS ≈ 2,000 ppm) to remove coal fines, TSS, TDS, algae, iron and manganese

Treating surface water for industrial process water

Bayswater Power Station Water Treatment Plants for Macquarie Generation, NSW

Design, build and operate 4 water treatment plants at Bayswater Power Station, one of Australia's largest power stations

- Capacity: 2,640 MW (power station) and 120 Megalitres/day (WTPs)
- Process: lime softening, reverse osmosis, 8 Actiflo® clarification units, ion exchange, filtration, HPD brine concentrator and crystalliser
- Application: industrial process water
- Protect the environment by reducing the salinity of nearby Lake Liddell, through an increased salt removal capacity, as well as maintain Bayswater as a Zero Liquid Discharge (ZLD) Power Station

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