Creating Water Solutions for Islands and Coastal Communities
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Securing water and minimising environmental impact is essential

The need for sustainable solutions and an integrated water resource management approach is recognised as the only way to go forward around the world. Climate change, droughts, floods, groundwater salinity, overuse of aquifers, rising sea water levels, rainfall variability and El Nino/La Nina climatic events have a direct impact on the availability of water resources for islands and coastal communities.

With over 70 years of international experience in water and wastewater treatment processes, we work in partnership with you to guarantee that your water quality and availability meet your expectations. Our wide range of equipment and process expertise meet specific requirements of municipal, commercial and industrial customers.

We have strong expertise and innovative capacity, supported by Research & Development and an international network of experts. We are a world leader in water reuse and desalination, with thousands of installations throughout the world.

Customers

- Municipal customers and water authorities
  - Hospitals, including dialysis
- Commercial customers
  - Tourism, resorts including golf courses
- Industrial customers
  - Mining, oil & gas
  - Food & beverage including dairy, agriculture, aquaculture...
  - General industry and manufacturing, car washing...

Our strengths in the Pacific region:

- Active presence of the Veolia group in Australia-New Zealand with over 9,000 employees (water, waste management, transport and energy)
- Guaranteed high quality of products, equipment and Water Specialty Chemicals, meeting stringent international standards
- Water solutions suitable for sensitive environments (coral reefs, marine and natural parks, rivers etc)
- Experience in working with government agencies and local governments
- We can recommend robust and reliable equipment requiring minimal maintenance and easy to operate
- Skilled team of Service Engineers trained in water treatment processes and equipment
- Customised training for local technicians and operators on service and maintenance of equipment

We can provide:

- Treatment for groundwater, brackish water and seawater for producing high quality drinking, process or irrigation water
- Treatment of wastewater and contaminated water to remove bacteria and viruses, heavy metals, arsenic & other contaminants for safe discharge or reuse
- Expertise in membranes and remote monitoring
- Standard packaged water and wastewater treatment plants and engineered systems
- Service, maintenance, training & chemical solutions
- Products, services & activities certified to ISO 14001, ISO 9001 and AS/NZS 4801 by BSI Certification
Technologies

Reverse Osmosis desalination units for brackish water or sea water
- Containerised or skid-mounted reverse osmosis mobile units for water desalination or water demineralisation
- Quick & easy to install, meeting international standards
- Wide range of models available

Ultrafiltration units
- Containerised or skid-mounted units: plug and play, built to the highest standards
- Quick & easy to install

Moving Bed Biofilm Reactor (MBBR) & Neosep® Membrane Bioreactor
- Advanced membrane and media based biological wastewater processes for producing high quality water from municipal or industrial wastewater (removal of solids, turbidity, carbon, nitrogen, ammonia and bacteria)
- Treated water can be used for irrigation, industrial use or discharge into sensitive environment

Hydrotech® Discfilters
- Flexible microscreen filter for tertiary treatment/effluent polishing of wastewater treatment plants
- Cost effective technology, compact design, easy to operate, large filter area

Ecodisks®
- Simple and robust installation to treat wastewater treatment problems through aerobic digestion for small and medium-sized communities
- Modular, pre-fabricated system, easy to install & cost effective

Standard Products, Skid Systems, Consumables
- Standard products & equipment including Actiflo® clarification packs, reverse osmosis, deionisation systems, softeners, media and carbon filters
- We also provide a complete range and support for any spares, consumables, membranes etc...

Hydrex® Specialty Water Chemicals
- A complete range of water chemicals for boilers, cooling towers, membranes or wastewater treatment
- Can significantly improve the management of scaling, corrosion, suspended solids & reduce operation & maintenance costs

Maintenance & Service Agreements, Training
- We can tailor maintenance and service agreements, as well as customise training to suit your specific site and needs
- Based on our international experience, we can also provide valuable advice on the complete water cycle, meeting your specific site requirements

Access our brochures on www.veoliawaterst.com.au
Case Studies

> RECYCLING WASTEWATER FOR REUSE

Brampton Island Sewage Treatment Plant, Whitsundays, Australia
- Design & Build contract for the upgrade of Brampton Island Sewage Treatment Plant in the Whitsundays Islands, part of the Great Barrier Reef
- Capacity: 100 kilolitres/day
- Process: Neosep® Pack membrane bioreactor and Ultrafiltration
- Application: Queensland EPA (Environmental Protection Authority) class A quality treated water suitable for golf course irrigation

Honouliuli Water Recycling Facility, Honolulu, Hawaii
- Design, Build & Operate contract for the upgrade of an existing wastewater plant for 20 years
- Capacity: 45,000 m³/day
- The innovative turnkey project included the installation of 24 km distribution system
- Process: tertiary treatment including sand filters & UV with an integrated membrane system (Microfiltration / Reverse Osmosis)
- Application: irrigation water, boiler feed and process water for the power station and oil refinery

> PROVIDING SAFE DRINKING WATER THROUGH DESALINATION OF SEA WATER

Desalination plant for Club Crocodile resort, Whitsundays, Australia
- Sea Water Reverse Osmosis desalination (SWRO) plant to produce drinking water for guests and staff of Club Crocodile on the Long Island resort in the Whitsunday Islands
- Capacity: 120 kL/day
- Significant savings were induced, as water from desalination was much cheaper than shipping water from the mainland on a barge

Desalination plant for the Nauru Government, Republic of Nauru
- Design & installation of two containerised & two skid-mounted SWRO units
- Capacity: each 120 kL/day
- Application: provide fresh drinking water to the population (this desalinated water represents the only source of potable water in Nauru besides rain water tanks)
- Funding by AusAid, International Organisation of Migration and the Nauru Government

> SUPPLYING HYDREX® SPECIALTY WATER CHEMICALS TO IMPROVE RELIABILITY

Hydrex® Chemicals for Capelle & Partner supermarket, Republic of Nauru
- Modification of existing Reverse Osmosis desalination unit
- Supply of Hydrex® Specialty Chemicals 4000 (antscalants) to reduce biological fouling and scaling of the membranes
- Reduction of operating costs by over 75% after using Hydrex® Specialty Water Chemicals

> PROVIDING TRAINING, CONSUMABLES & WATER SERVICES

Training on reverse osmosis through AusAid, Republic of Nauru
- Service contract with AusAid to train local people in Nauru to maximise their efficiency in operating & servicing reverse osmosis desalination units
- Provide knowledge on disinfection capabilities
- Provide spares, consumables, as well as emergency breakdown assistance when required
PROVIDING FEED WATER & ULTRA PURE WATER FOR HOSPITAL USE

Desalination plant for Nauru Hospital, Republic of Nauru
- Design & install 2 brackish water reverse osmosis desalination units to produce ultra pure water
- Capacity: each 15 kilolitres/day
- Application: drinking water and feed water for the Nauru Hospital (1 unit), ultra pure water for dialysis treatment (1 unit)
- Funding by the Commonwealth of Australia through the Department of Immigration And Citizenship and the Nauru Government

PROVIDING DRINKING WATER FOR REMOTE SITES

Desalination plants for Chevron Vermilion, Thevenard & Barrow island, Australia
- Design & Build of 3 sea water reverse osmosis & 1 brackish water desalination plants supported with maintenance, service & chemicals service agreements
- Capacity: 120 m³/day and BWRO: 160 m³/day
- Application: produce high quality drinking water for staff based on an offshore oil rig off the Western Australian coast and provide water for production to Chevron, large world energy company with the BWRO plant also providing water for production

TREATING MINE WATER BEFORE DISCHARGE INTO ENVIRONMENT

Effluent Polishing Plant for Goro Nickel Mine, New Caledonia
- Design & Supply an effluent treatment plant to remove suspended solids coming from the acidic wastewater neutralisation plant & the conventional clarifiers
- Capacity: 7,000 m³/day
- Process: 3 Actiflo® clarification units followed by 4 Hydrotech® discfilters (Actidisk® Process), a very efficient & compact process including treatment of gypsum rich water
- Application: produce high quality water suitable for discharge into sensitive marine environment

REDUCING WASTEWATER & STORMWATER ENVIRONMENTAL IMPACT

Wastewater treatment plant for Thames Coromandel District Council, New Zealand
- Design, supply, install and commissioning of 6 Hydrotech® Discfilters to treat municipal wastewater at three sites (Whitianga, Pauanui & Whangamata)
- Total Capacity: 29,000 m³/day
- Application: tertiary filtration of wastewater prior to discharge to estuaries in pristine coastal resorts along the Coromandel peninsula

Actiflo® clarification plants for Rodney & Gore District Councils, New Zealand
- Design & supply Actiflo® clarification packaged plants
- Rodney DC: treat peak storm flows to reduce Total Suspended Solids (TSS) & phosphorous before discharge into environment. Capacity: 9,000 m³/day
- Gore DC: reduce phosphorous from municipal wastewater before discharge into nearby river used for trout fishing. Capacity: 7,500 m³/day

- Nauru Fisheries: Supply of a sea water reverse osmosis desalination unit to provide 14 kL/day of water to produce ice & process water for Nauru Fisheries
- Papua New Guinea: De-alkaliser and softener plant for a plantation
- Water Corporation Cocos Island: Reverse Osmosis Desalination Plant for brackish water, to produce potable water for bore water supply. Capacity: 2.5 m³/hour, 75% reverse osmosis recovery, feed temperature: 30°C
- Tahiti (French Polynesia): Supply of consumables to a local authority to support water treatment
- Hamuta (French Polynesia): 1,800 eq. population, 6,540 m² Eco-Disks® to reduce pollution through aerobic digestion
- Warwick Resort (Fiji Islands): 1,200 eq. population, 5,100 m² Eco-Disks® to reduce pollution through aerobic digestion
Veolia Water Solutions & Technologies Australia and New Zealand
Creating Water Solutions

Present in Australia & New Zealand for over 70 years, Veolia Water Solutions & Technologies is a world leader in Design & Build of water and wastewater treatment plants, focusing on reuse & desalination.

We provide Design & Build capabilities, custom & standard skid systems, Equipment Supply, Mobile Plants, Hydrex® Specialty Water Chemicals, as well as Maintenance & Service agreements. We offer advanced technologies and processes, including Membrane Filtration, Reverse Osmosis, Actiflo® Clarification, Discfilters, Neosep® Membrane Bioreactors, and Moving Bed Biofilm Reactors.

We create water solutions for drinking water, industrial process water and wastewater aimed at municipal, commercial & industrial customers (Mining, Power, Oil & Gas and Food & Beverage).

For all inquiries on our offer for islands, please contact: Philip Battey, Business Development Manager Veolia Water Solutions & Technologies (Melbourne office):
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