

INTERNATIONAL ENTERPRISE SINGAPORE

# Water & Wastewater Management

Leading the way in integrated water management solutions



Driving  
Singapore's  
External  
Economy

Singapore

**With one of the most advanced water management systems in the world, Singapore is fast becoming a global hub for water management knowledge, technology and services.** Leveraging this critical mass of expertise, Singapore-based companies offer a full range of cutting-edge, integrated solutions to a growing number of clients around the world.

### A wealth of experience

With a population of almost 5 million people living in just 710 sq km, and limited fresh water resources, Singapore has had to develop innovative solutions to meet its water management needs.

Drawing on this experience, Singapore-based companies are able to provide holistic and fully-integrated water management solutions along the entire value chain.

These include:

- Master planning and consultancy
- Technology and equipment supply
- Process design, systems integration and construction
- Operations and maintenance

In Singapore you will find companies with expertise in a wide range of water management areas, including desalination, water treatment, and municipal and industrial wastewater treatment projects. Singapore-based companies also offer extensive technical and R&D expertise, including a range of treatment methods and proprietary technologies.

### Water management in Singapore

Today, thanks to a dynamic and diversified strategy to secure alternative sources of water – known as the Four National Taps – Singaporeans have a sustainable supply of good, clean drinking water.

The Four National Taps are:

- Water from local catchment areas
- Imported water
- Reclaimed water (NEWater)
- Desalinated water

Singapore's tap water is well within World Health Organisation's drinking water guidelines and is suitable for drinking without further filtration.

We have an integrated water demand management programme that incorporates the proper handling of the transmission and distribution network to minimise losses. The result: Singapore's unaccounted for water stands at 4.5 per cent, one of the lowest rates in the world.



**Fujairah Independent Water and Power Plant (IWPP), UAE**  
As the world's largest operating hybrid desalination plant, the Fujairah IWPP has a desalination capacity of 100 million imperial gallons of water per day.



**Deep Tunnel Sewerage System, Singapore**  
Transports used water from homes and industries through a 48-km long deep tunnel sewer that runs 20 to 55 meters below ground to a centralised water reclamation plant for treatment.



Image courtesy of Keppel

**Doha North Sewage Treatment Works, Qatar**

When completed, this will be the largest wastewater treatment, water reuse and sludge treatment plant in the Middle East.

**Going global**

Singapore-based companies have contributed their expertise, experience and technologies to numerous major projects around the world. These include running the world’s largest operating hybrid desalination plant and China’s first plant capable of treating high-concentration industrial wastewater without pre-treatment by customers, conceptualising and implementing innovative water reuse systems in China and the Middle East and building some of the largest seawater reverse-osmosis plants in the world, in places such as Algeria and China.

Examples of Singapore-based companies with major overseas projects include:

- **Hyflux:** Building the world’s largest membrane-based seawater desalination plant in Algeria. The plant will have a designed capacity of 500,000 cu m per day using Hyflux’s proprietary ultrafiltration membranes for pre-treatment and reverse osmosis membrane technology.
- **Keppel Seghers:** Keppel Seghers, a division of Keppel Integrated Engineering, has been awarded a design-build-operate contract for the Doha North Sewage Treatment Works, a wastewater treatment & water reuse and sludge treatment facility.
- **Sembcorp Industries:** Sembcorp owns and operates facilities capable of treating industrial wastewater from multiple sources, including China’s first facility capable of treating high concentration industrial wastewater directly from source without pre-treatment by customers. In addition, the company owns and operates the world’s largest operating hybrid desalination plant in Fujairah, UAE, as well as an upcoming power and water plant in Oman.



**SingSpring Desalination Plant, Singapore**

Using advanced energy-and-cost efficient reverse osmosis technology, the SingSpring Desalination Plant is one of the largest membrane-based seawater desalination plants in Asia.



**nEWATER**

Ultra-clean, high-grade reclaimed water obtained through using advanced membrane technologies.

**International Enterprise Singapore**

International Enterprise (IE) Singapore is the government agency driving Singapore’s external economy. We spearhead the overseas growth of Singapore-based companies and promote international trade.

With our global network in over 35 locations spanning many emerging markets, we connect businesses with relevant Singapore-based companies for their business expansion. Renowned worldwide for their dedication to quality and innovation, Singapore-based companies make ideal business partners.

We also position Singapore as a base for foreign businesses to expand into Asia in partnership with Singapore-based companies. Singapore’s unique advantages of strategic location, stable government, competitive workforce and pro-business environment make it an ideal launch pad to the region.

Visit [www.iesingapore.com](http://www.iesingapore.com) for more information.

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This brochure is printed using  
soy ink on recycled paper.

V1/Mar 2012

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