



Government of Canada

Trade Commissioner Service

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Canada

# CANADA'S WATER INDUSTRY ONSITE WASTEWATER SOLUTIONS

The world's population is urbanizing, but in small, rural and remote communities, as well as in many industrial operations, there remains a strong need for sustainable, cost-effective wastewater solutions.

Canadian firms understand these needs and offer many affordable alternatives to large, centralized infrastructure. With their onsite or decentralized wastewater treatment systems, these companies are providing long-term, safe solutions that help clients save on capital costs and reduce operation and maintenance costs.

With comparatively smaller footprints than centralized systems and the opportunity to incorporate water reuse, these solutions are also helping clients achieve their environmental goals. Modular systems have further economic benefits, allowing communities to respond to growth incrementally and use land wisely.

BY 2050, THE WORLD'S POPULATION WILL BE

# 1/3 RURAL<sup>1</sup>

Small communities, as well as remote industrial operations, need reliable access to wastewater services.

<sup>1</sup> World Urbanization Prospects: the 2014 Revision.



## ISLAND WATER TECHNOLOGIES

> [islandwatertech.com](http://islandwatertech.com)

In 2017, **Island Water Technologies (IWT)** (Prince Edward Island) delivered and installed a mobile sewage treatment plant to serve 300 people in Hassi Messaoud, Algeria. IWT offered a simple, self-contained system that uses a process which does not require chemicals and has no moving parts. The system includes "smart" operation: performance is monitored remotely by local operators, as well as by the IWT technical team based in Canada. Finally, IWT's solution saves its operators up to 90 percent of the energy costs associated with traditional packaged wastewater treatment systems, such as MBBR and MBR. The system also delivers treated water that is suitable for reuse (irrigation) onsite, thereby saving further costs for the client. IWT installed the system in three days, and technical staff from the company provided direction and support through commissioning and operation.

Bringing leadership and innovative solutions to the world.

WATER  
INDUSTRY

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## CANADIAN COMPANIES WORKING GLOBALLY

When it comes to onsite wastewater solutions, Canadian companies are leading the way. Here are some examples of firms at work around the world.



### **PREMIER TECH AQUA** > [premiertechaqua.com](http://premiertechaqua.com)

Located in Greater Noida near India's capital city of New Delhi, Jaypee Greens Sports City is the country's first fully integrated mega-city. The 2,500-acre (1,011 hectares) development project is also home to India's premier motorsports destination: the Buddh International Circuit, a modern, 40,000-seat stadium and host of the first Indian Grand Prix in 2011. In 2010, **Premier Tech Aqua** (Quebec) designed an Ecoprocess™ SBR biological sewage treatment plant. The solution consisted of two SBR reactors designed to treat 3 MLD and handle typical municipal sewage with BOD of 350 mg/L during the F1 race season, and cope with the low-flow requirements of the non-race periods of the year. The solution uses gravity flow whenever possible and integrates reliable and efficient equipment, such as aeration with membrane fine bubble diffusers. By providing aeration and settling in the same tank, the solution allows for up to 30-40 percent space saving capacity compared to conventional plants requiring an activated sludge return process. Finally, Premier Tech Aqua provided a more flexible scope of supply to SIMA Labs, which allowed the contractor to purchase equipment from a greater number of local Indian suppliers, thus further reducing the overall cost of the project.



### **NEWTERRA** > [newterra.com](http://newterra.com)

The Ritz Carlton - Molasses Reef is an upscale luxury vacation destination on the once uninhabited and undeveloped West Caicos Island in the Turks & Caicos. As West Caicos was previously undeveloped, there was the need to build infrastructure and establish needed utilities such as clean, reliable potable water. **newterra** (Ontario) was chosen to build the first permanent desalination systems on West Caicos to provide water for the entire island. The newterra system brought potable water to an entire island where fresh water was previously unavailable. Remote monitoring and a yearly service ensures that Ritz Carlton management has more time to focus on guest requirements without having to worry about water.



### **CLEARFORD WATER SYSTEMS INC.** > [clearford.com](http://clearford.com)

In April 2016, **Clearford Water Systems** (Ontario) delivered the first fully operational Clearford One™ system in India, bringing a new level of sanitation, public health protection and social responsibility to Jambudiyapura, a tribal village of Gujarat. The firm's wastewater technology has made this the first open-defecation free village in this region, while establishing a sustainable model for community-led sanitation. The key to enabling the efficiencies of Clearford One™ is onsite removal of sewage solids and digestion of organic pollutants in ClearDigest™ smart digester tanks. Clearford One™ can be rapidly and cost-effectively installed throughout rural areas of India, and can play a major role in improving sanitation for an entire village. In Jambudiyapura, the installation of underground infrastructure, a treatment plant, and toilet blocks—one for every home in the village—was completed in just six months. This project is the first delivered by Clearford as part of an MOU signed with Infrastructure Leasing & Financial Services Limited to demonstrate the capabilities and benefits of Clearford One™ to rural areas in India.

### MORE CANADIAN FIRMS OFFERING ONSITE SOLUTIONS:

- > Aclarus Ozone Water Systems
- > Aslan Technologies Inc.
- > Bionest
- > Bishop Water Technologies
- > ECONSE Water Purification Systems Inc.
- > Greyter Water Systems
- > H2Flow Equipment Inc.
- > H2O Innovation
- > Lystek International
- > Newalta
- > Purifics Water Inc.
- > RH2O North America
- > Terragon Environmental Technologies Inc.
- > Trojan Technologies
- > UV Pure Technologies
- > Waterloo Biofilter Systems Inc.
- > WCI Environmental Solutions Inc.

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