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CANADA'S WATER INDUSTRY WATER REUSE TECHNOLOGIES

As the world experiences the impacts of climate change, many regions are facing challenges associated with water scarcity. There is a new urgency to make the best use of limited water supplies through conservation measures, as well as a growing demand for treatment technologies that can meet strict standards for water reuse.

When it comes to reuse, Canadian firms and their solutions are in demand globally. In regions that are experiencing long-term drought, these companies are collaborating with municipalities to provide proven treatment technologies for onsite water reuse in homes and buildings. They are working with developers to ensure that new homes are built to treat and safely reuse rainwater and greywater, and they are providing new solutions to retrofit existing buildings.

Canadian firms are also solving water scarcity challenges in the agricultural sector, applying new technologies to treat and reuse water for irrigation, as well as recharging aquifers. They are also at work in the natural resources sector, responding to new conservation policies with reuse technologies that increase productivity in mining and refining operations.

AT LEAST

2/3



OF THE GLOBAL POPULATION, MORE THAN

4 BILLION PEOPLE

live with severe water scarcity for at least one month every year.



UV PURE > uvpure.com

Water scarcity is a major challenge for regions suffering from drought, such as California. **UV Pure Technologies (Ontario)** and partner companies have signed a memorandum of understanding with the Los Angeles Department of Water and Power to address the city's greywater recycling initiatives under the new NSF 350 standard, which allows onsite water reuse. The standard is becoming a requirement of all new commercial construction in Los Angeles, and UV Pure has the sole ultraviolet technology approved to meet it. The company has a demonstration installed at the La Kretz Innovation Campus.



WATER
INDUSTRY

Bringing leadership and innovative solutions to the world.

TRADE COMMISSIONER SERVICE (TCS)

CANADIAN COMPANIES WORKING GLOBALLY

When it comes to advances in water reuse, Canadian companies are leading the way. Here are some examples of firms at work around the world.

GREYTER WATER SYSTEMS > greyter.com

As a permanent sustainable home for environmental education programs for 14,000 young people across the nation annually, NatureBridge's Environmental Education Center in Yosemite National Park, California is designed to meet a goal of net-zero energy and save 60% over standard water use. In 2016, the organization selected **Greyter Water Systems** (Ontario) for greywater reuse within the 40,000 square foot campus. The Greyter system will lend to the building's LEED Gold rating by collecting and treating greywater from showers for reuse for flushing toilets.



BQE WATER > bqewater.com

Mining activities produce wastewater that can contain various constituents including dissolved metals, sulphate, selenium, nitrate, ammonia and/or cyanide that can limit or prevent water reuse. In 2007, **BQE Water** (British Columbia) entered into a development agreement with an Arizona, USA mining company to apply its Sulf-IX™ technology on mine-impacted water containing elevated levels of sulphate. The approach focuses on reclaiming the mine water for reuse and generating a clean, solid and non-hazardous by-product. By maximizing water recovery while eliminating the production of liquid brine waste and the associated disposal costs, the solution significantly reduces treatment life-cycle costs.



FILTERBOXX > filterboxx.com

In February 2016, **FilterBoxx Packaged Water Solutions** (Alberta) was awarded the contract to supply a 150,000 m³/yr (39,600,000 gal/yr) wastewater treatment and recycle plant for the world's fifth-largest pharmaceutical company. Through innovative process design, this client will be able to significantly reduce operational costs relating to water supply and wastewater disposal while providing higher quality water to cooling towers and benefitting from increased process efficiency. The FilterBoxx solution includes an integrated skid-based ultrafiltration and reverse osmosis system that will ultimately treat and recycle over 86% of the company's wastewater.



MORE FIRMS OFFERING WATER REUSE SOLUTIONS:

- > Aclarus Ozone Water Systems
- > Aslan Technologies
- > BRIO
- > Canplas Industries
- > CUT Membrane Technologies
- > ECONSE Water Purification Systems
- > Forward Water Technologies
- > Global Hydration
- > Greenland International Consulting
- > Kontek Ecology
- > newterra
- > RainGrid
- > Rainmaker Worldwide
- > Renix
- > TrojanUV

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