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CANADA'S WATER INDUSTRY MANAGING WATER SYSTEMS WITH DIGITAL TECHNOLOGIES

In combination with advances in cloud computing, sensors, and digital decision support tools, Canadian firms are using their water and wastewater management expertise to deliver solutions that address the world's most pressing water challenges.

Working with utilities and other partners, these companies are developing innovative solutions that are helping make more informed decisions about how they efficiently manage water, wastewater, and stormwater infrastructure and the many systems involved in delivering these services, including human resources, customer relations, and operator training. These solutions are streamlining complex processes, providing new ways to interpret data and prioritize action, and, importantly, saving clients' money and time.

In partnership with IBM, the Southern Ontario Water Consortium has developed a platform that assimilates data collected every 15 minutes from more than 120 sensors across the Grand River watershed. The sensors capture meteorological, surface, subsurface and groundwater data, monitoring rain, snow, soil moisture, water turbidity, flow rates, temperature, and groundwater quality. The online platform supports new products, technologies, and research applications for the water industry and academic researchers.
> sowcdata.ca



ECHOLOGICS > echologics.com

Since 2013, **Echologics** (Ontario), a Mueller Technologies company, has assessed more than 200 miles of Washington Suburban Sanitary Commission's water pipeline. A recent contract extension, which is worth up to \$2 million, will allow the commission to assess even more miles of cast iron, ductile iron and steel water mains in its water distribution network. WSSC is among the largest water and wastewater utilities in the United States.

WSSC will deploy Echologics' ePulse® technology. This proprietary and patented acoustic pipe condition assessment technology is a non-invasive solution that is designed to provide water utilities with cost-effective and accurate measurement of the remaining average wall thickness of a selected length of pipe. It has the added benefit of being able to simultaneously identify leaks.

Echologics is a leading developer and provider of smart water technologies, including acoustic-based technologies for leak detection, pipe condition assessment and water loss management, which allow water utilities to intelligently manage their assets.

Bringing leadership and innovative solutions to the world.

WATER
INDUSTRY

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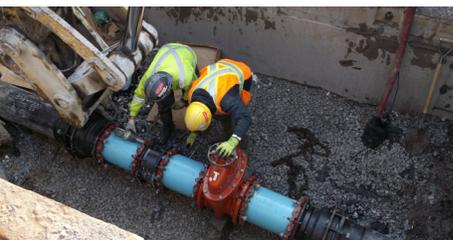
CANADIAN COMPANIES WORKING GLOBALLY

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



WATERTRAX > watertrax.com

Gallatin is located outside of Nashville in Sumner County, Tennessee. The water treatment plant serves more than 15,000 customers, running more than 13,000 water quality tests from more than 60 sampling locations located throughout the region. Gallatin Public Utilities needed a flexible internal data management processes. They selected the **WaterTrax** (*British Columbia*) Data Management Suite including the Sampling Planner, Mapping Module and the Complaint Management Suite. The web-based, centralized database allows the utility to get a clearer picture of its water system, view data and customer complaints on a map, and set sampling schedules that ensured regulatory compliance. The system saves time by introducing efficiencies, especially when it comes to audits. It also allows the utility to have a more fulsome understanding of its entire system and better respond to customers.



GREENLAND INTERNATIONAL CONSULTING LTD > grnland.com

In summer 2016, award-winning **Greenland International Consulting Ltd.** (*Ontario*) initiated a Canada / Europe partnership to develop the first-ever Internet-GIS and open data flood forecasting and floodplain mapping platform. It will also be used to identify effective solutions that minimize flood damage and risk to life, while also having regard for climate change factors. Partners from research teams, non-governmental organizations, climate forecast agencies, and other small business enterprises are participating from Canada, Sweden and France. The partnership is supported by funding from federal programs, including NRC-IRAP and Going Global Innovation.



ENVIROSIM > envirosim.com

The Thames Tideway Tunnel is an under-construction 25 km tunnel running mostly under the tidal section of the River Thames through central London, UK. The tunnel will capture, store, and convey raw sewage and rainwater discharges from 34 combined sewer overflows that currently discharge to the river, instead transferring them to the Beckton Sewage Treatment Works. Developed by **EnviroSim** (*Ontario*), the BioWin wastewater treatment process simulator is being used to model the Beckton works under a variety of future flow and load scenarios to ensure that additional wastewater pumped from the tunnel will receive the required level of treatment.

MORE FIRMS OFFERING DIGITAL WATER MANAGEMENT SOLUTIONS:

- > 6Harmonics
- > Alert Labs
- > Civica
- > Clean Cut Energy
- > Compliance365
- > Ecoinsight Instruments
- > ENBALA Power Networks
- > Eramosa
- > Global Spatial
- > Technology Solutions
- > Hydrant Network Solutions
- > HydraTek & Associates
- > Hydromantis
- > Iconac
- > PrecisionHawk
- > SkyWatch
- > Syrinix
- > WatrHub

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