



Water Treatment Solutions for the Remediation Industry

WATER TECHNOLOGIES

Taking care of a vulnerable environment

Growing world demographics, intensive farming practices, urban and industrial expansion all have harmful effects on the environment. Soils and groundwater are directly impacted and subject to great environmental stress. Should their quality be jeopardized by any type of contamination, their future use may then be compromised.



Giving life back to surface and ground water

Veolia Water Technologies is a water and wastewater treatment specialist operating on a global scale through local teams in over fifty countries. Veolia's extensive range of technologies and services meet the diverse needs of both municipalities and industries. Strong with continuous R&D, Veolia custom-designs solutions that best fit remediation projects including rapid deployment of water mobile solutions for complex and environmentally sensitive projects. Veolia is, therefore, a sound technical resource and solid partner for water and wastewater applications.

A wide range of proven solutions for a wide range of needs

With more than 350 patented technologies, Veolia Water Technologies leverages the experience, capabilities, and technologies to support industries by utilizing the worldwide network of companies. This collaboration ensures that the research and development efforts benefit our clients with a "one-stop shop" to address the wide variety of water treatment requirement in the remediation industry.

- ACTIFLO® High Rate Clarifier for clarification and softening, with a footprint up to 20 times smaller than conventional systems.
- ACTIFLO CARB® High Rate Clarifier with the adsorption capacity of Powdered Activated Carbon (PAC) to eliminate substances resistant to the clarification process
- Multiflo™ Enhanced clarification & softening for higher TSS waters
- Hydrotech™ Discfilters, for high-rate, robust filtration
- AnoxKaldnes™ Moving Bed Biofilm Reactor biological treatment for ammonia nitrogen and organics for various effluent
- Micro Porous Polymer Extraction technology Removing toxic content of the water streams and creating a discharge that is Zero Harmful to the environment
- Carbon Filters for contaminants and organics adsorption



A large range of services to meet our clients' needs

- Mobile Water Services for temporary or emergency water needs
- Hydrex™ Water treatment chemicals
- Activated carbon (PAC and GAC)
- AQUAVISTA Digital solutions for remote monitoring and controlling of connected plants and water treatment equipment



Veolia's Experience in Remediation

Veolia has remediation projects references throughout the world. Our local teams - present in over 50 countries - design, install, commission and service the complete range of technologies and solutions required in the field. In Canada, Veolia has the local know how and experience on the Group's main technologies required for industrial water treatment in remediation applications.



Hamilton Harbour Randle Reef, Ontario

Removal of TSS and PAH from dredging water

- Actiflo for TSS removal
- Acticarb for PAH (Polycyclic Aromatic Hydrocarbons) removal
- Chemicals' supply and operation

Flow: 16 300 m³/d

Particularities:

- Rehabilitation of the highly contaminated Hamilton Harbour
- Temporary installation (3 years)
- Turn-key project, from construction through demobilisation



Site Rehabilitation, Northern Ontario

Removal of TSS and Metals (Cu, Zn and others)

- Actiflo for TSS removal
- Discfilter for polishing
- Chemicals' supply and operation

Flow: 5 455 m³/d

Particularities:

- Treat water produced during site rehabilitation with high variability depending on construction activities and weather
- Complete turn-key mobile treatment system
- Congested and narrow site



Abandoned Mine, Yukon

Emergency TSS Removal from water from Cross Valley Pond

- Reactor
- Mobile Actiflo
- Chemicals

Flow: 5 500 m³/d

Particularities:

- Water contains high concentration of ferrous iron
- System oxidize ferrous to ferric iron, which act as the system's coagulant



St-Nicéphore, Quebec

Leachate treatment for BOD, NH₄-N, NO₃ and TSS Removal

- Sequential Biological Reactor (SBR)

Flow: 500 - 800 m³/d

Particularities:

- Influent Ammonia Nitrogen > 1000 mg/L
- Nitrification and Denitrification : Reduction of alkalinity consumption
- Achieve Quebec governmental regulation
- Self operating process; PLC control logic

Resourcing the world

Veolia Water Technologies

4105 Sartelon • St-Laurent, Quebec • H4S 2B3
tel: 514-334-7230 • fax: 514-334-5070

sales@veolia.com • www.veoliawatertechnologies.ca