

# Bishop Solids Management Solutions

Low-energy, easy-to-operate dewatering and containment





# Bishop Solids Management Solutions: Cost-effective, onsite solids dewatering and containment

Reduce the cost and complexity of solids collection, dewatering and containment with easy-to-operate, low-energy **Bishop Solids Management Solutions**.

Unlike complex, energy-intensive mechanical dewatering equipment, the Bishop approach utilizes a passive dewatering process that achieves a high level of dry solids using only specially selected polymers, Geotube® filtration and gravity.

**Bishop Solids Management Solutions**, with Geotube® dewatering containers, can accept and dewater solids as fast as they can be pumped in, which eliminates the additional time that some conventional settling processes require. These advantages enable **Bishop Solids Management Solutions** to perform faster, more efficiently and at lower cost than alternative systems.



## Proven solutions designed and installed by an experienced team

**Bishop Solids Management Solutions** are ideal to collect and dewater virtually any type of organic or granular slurry material, including fines, silts and clays. Systems that are permanently installed, or operating on a temporary basis, are proven to provide consistent results and reliable, cost-effective dewatering performance, odour control and containment for a wide range of demanding applications.

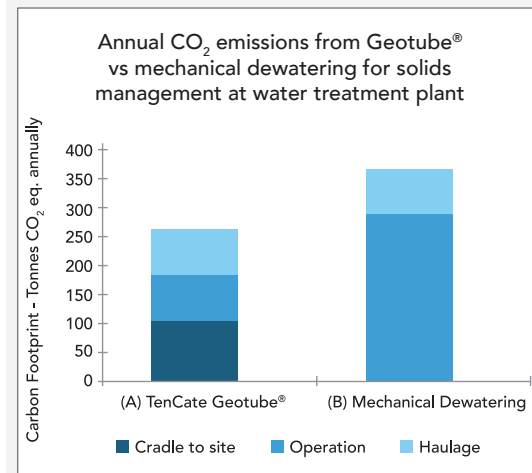
Precise, automated polymer dosing with Bishop Water's Venturi Emulsified Polymer Activation System (VEPAS) accelerates dewatering and ensures that fine solids are bound together and remain in the container.

An optimized polymer regime, combined with Geotube® containers, aids in the removal and retention of contaminants such as BOD, TSS, phosphorus, nitrogen and even metals, including lead, copper, nickel, chromium, cobalt and more. In many cases, this treatment process can produce filtrate that meets regulatory requirements for discharge into sanitary sewers or directly into receiving bodies.



## Low lifecycle costs

With few components, low energy requirements and little operator oversight required, lifecycle costs are a fraction of alternative dewatering systems. Superior performance also helps significantly reduce hauling costs to dispose of sludge and contributes to a dramatic reduction in overall greenhouse gas emissions compared to mechanical alternatives.



# A system for all dewatering and containment projects

Modular **Bishop Solids Management Solutions** are fully customizable to fit any dewatering and containment parameters with a compact site footprint. This versatility, combined with robust performance, has led to rapid adoption for challenging solutions throughout Canada including:



## Municipal

Sludge dewatering, lagoon cleanout, septage management, water treatment residuals.



## Stormwater ponds

Restore storage capacity without decommissioning ponds.



## Commercial, industrial and agricultural

Expand lagoon capacity, dewater and contain process waste material.



## Environmental remediation

Dredging and dewatering of contaminated sediment from rivers, lakes and other waterways.



## Construction

Onsite collection and dewatering of excess soils for reuse or removal.



## Shoreline protection and marine structures

Protect and reclaim land, create wetlands, build offshore structures.



## Mobile systems for emergency or temporary dewatering needs

Bishop Water's Mobile Dewatering System provides a rapidly deployable, compact solution to efficiently and cost-effectively handle the collection and dewatering of materials from virtually any site.

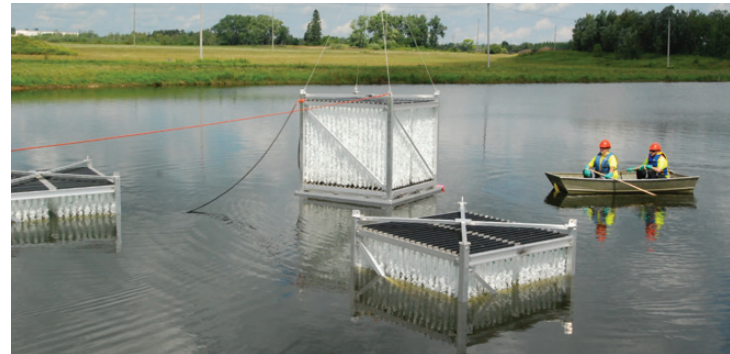
Whether handling wastewater sludge or contaminated sediments, the mobile system can often be commissioned within a day and provides the same high level of reliability, automation and performance as a full-scale installation. The system is certified to meet environmental compliance standards for contaminant removal and the safe discharge of treated filtrate.



## Ask us about simple, low-energy nutrient removal with Bishop BioCord™ Reactors.

Bishop BioCord™ Reactors provide a simple, low-energy, fixed-film biological treatment process to dramatically increase the capacity and performance of wastewater lagoons and conventional activated sludge systems. This modular, customizable technology can be installed directly into an existing treatment system, avoiding expansion to plant footprint and minimizing capital costs.

BioCord Reactors provide self-regulating and self-cleaning operation that responds quickly to variable influent or upset conditions and require little operator attention or maintenance. An optimized BioCord Reactor system is capable of significantly reducing target nutrients and other constituents including ammonia, nitrogen and BOD – even in cold-weather or high-strength loading conditions.



## Evaluate system performance with onsite or bench-scale testing

Simple dewatering tests can demonstrate the anticipated full-scale dewatering performance of a **Bishop Solids Management Solution**. Performed under passive or pressurized conditions, the tests verify the effectiveness of selected polymers and Geotube® filtration.

The data enables Bishop Water to select the best possible polymer, optimize the dose rate, and propose the design, equipment selection and construction of a full-scale system. The team can also calculate potential long-term savings that the Solids Management System will provide through reduced energy use, chemical consumption and solids hauling.

## Comprehensive services and support for the life of each Bishop Solids Management Solution

Bishop Water's highly experienced and capable teams support every aspect of system engineering, manufacturing and delivery of a **Bishop Solids Management Solution**, ensuring the highest level of quality and performance for each site.

Our team works closely with each client to assess site conditions and treatment requirements, design the appropriate Solids Management Solution and manufacture the system at our headquarters in Renfrew, Ontario. We incorporate the highest quality structural, process and control components to ensure that each Solids Management Solution delivers reliable, trouble-free operation and continually meets performance requirements.

Once on site, Bishop Water's skilled field technicians efficiently install and commission the Solids Management Solution and ensure that operators are fully trained to operate, maintain and optimize the system. Our team also strives to uphold our high standards and industry-leading reputation for responsive, customer-focused support.



### Bishop Water Technologies

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