

Golder Associates Concrete Analytical Facility

Project: Concrete Lab Wastewater Treatment

Location: Vancouver, BC

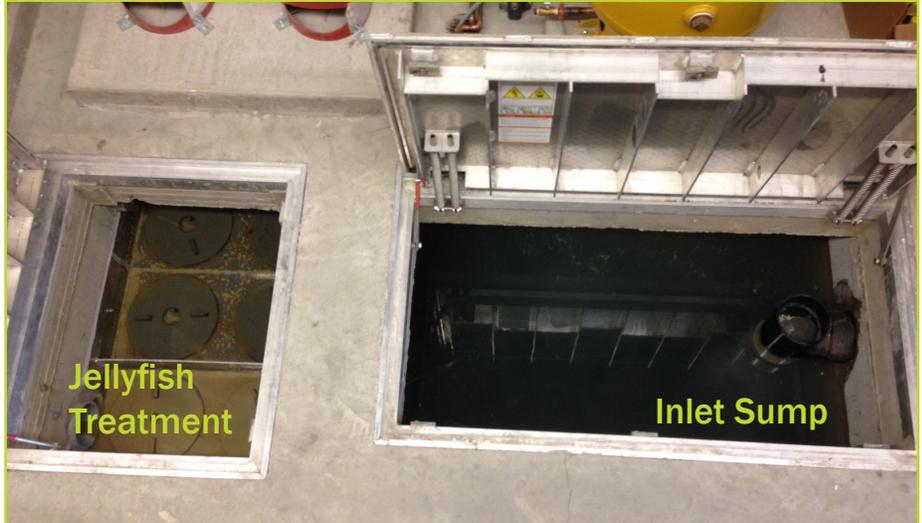
Owner: Golder Associates

Engineer: Integral Group BC

Contractor: Double V

Approving Agency: Integral Group Consultants

Product: Jellyfish® Filter



The Golder Associates laboratory facility in Vancouver, BC, conducts various concrete sample core tests daily, including concrete crushing and sawing. These tests ensure concrete used in developments throughout the greater Vancouver area meet the designed and required strength specifications. This testing produces a waste-slurry of fine concrete particles. If untreated, the concrete sediment would add an unnecessary load and blockage concern to the Vancouver water treatment system.

Initially, consultants were unaware of a cost effective technology to eliminate the resulting waste concrete sediment load. Then, the Jellyfish Filter was proposed. This facility wanted to achieve particulate removal down to the 5 micron level, which is accomplished by the Jellyfish Filter membrane technology. The Jellyfish Filter membrane is easy to rinse and clean, and operates from gravity flow making this a very simple and convenient solution.



The Jellyfish Filter stops the daily laboratory concrete waste sediment from clogging the city's wastewater treatment system by removing the very fine concrete particles prior to discharge. The system design used multiple 15-inch lightweight membrane filtration cartridges. The cartridges are easily accessed at floor level by opening a hatch in small precast vaults and are designed to treat a maximum 6.94 L/s (0.25 cfs).

Though commonly used for urban stormwater runoff treatment, the Jellyfish Filter was identified as a cost-effective waste water treatment solution within the test facility. Its compact design, with unique gravity flow, requires no electric power to provide the discharge treatment result. An additional benefit was the ease of access for periodic cleaning and rinsing. The small, lightweight filtration cartridges are easily removed so the membrane can be rinsed, and then re-used keeping the operation and maintenance cost to a bare minimum.

"We are extremely pleased with the quality of discharge to the sewer and simple cleaning procedures," noted Gary Fitzgerald, Equipment Coordinator at Golder Associates.