



The Challenge

Weymouth, Massachusetts is expanding its water treatment facility and discontinuing the use of alum sludge containment ponds. It needed to remove alum sludge and sediment from the reservoir where containment ponds decant was located.

The Solution

A town-hired consultant pilot-tested Geotube® containers and found, with proper chemical conditioning, this technology provide the highest economical volume reduction of sludge. The awarded contractor installed a lay down area of crushed stone and textile underlayment mat with drainage elevations of 1% to collection sumps. Geotube® containers were installed with interconnecting pipe manifolds, allowing several containers to receive flow as needed.

Pumping of the sludge and sediment using long-reach excavators modified with hydraulic pumps and a float-hydraulic dredge allowed access to various areas of the reservoir and containment ponds.

Flow rates of 800-2,500 gpm with slurry solids of 1-6% containing rocks, sticks and leaves were chemically treated using SmartFeed® technology to maintain necessary dosage rates and daily project data acquisition.

Water quality resulting from the process had a high capture rate resulting in 24 NTUs discharge with cake solids achieving 38% dry solids after several weeks of drainage.

Customer Comments

"As a contractor dealing with the towns consultant on project time lines. I found the daily process benchmarking provided by the SmartFeed™ chemical conditioning system, with on-site support of the filtration manager, was invaluable in making weekly project optimization decisions."

SmartFeed™ is a patent-pending technology of

Mineral Processing Services, LLC

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Application:

» Alum Sludge & Sediment Processing
From Reservoir Restoration

Location:

» Weymouth, MA

Engineer:

» Environmental Partners

Technology:

» SmartFeed™ Chemical Conditioning
» Geotube® Engineered Containers

Geotube® Distributor:

» Mineral Processing Services

Contractor:

» D & C Construction

Polymer:

» Aries Chemical