

Case Study: Clean out old digester and dispose of bio-solids while continuing to utilize the digester for septic tank and port-a-potty waste.



This old digester was completely full of bio-solids. Some of this waste had been in the digester for over 20 years and was heavily compacted in the bottom of the round concrete structure.

A large submersible pump is fixed to the end of a hydraulic crane. This pump can be lowered down into the digester as the pumping process is completed. The pump has a side discharge so that it can be used to mix as well as pump.

Geotextile dewatering bags would be utilized to dewater the digester. Eight drying beds adjacent to the digester were cleaned out to accept the bags. A small building was set up to house the chemical mixing and injection equipment.



After cleaning out the beds, drainage mat was laid out over the clean sand. Two bags would be placed in each bed. The bags were Blue River Technologies 30' X 100' bags.



The bags were positioned on top of the drainage mat and rolled out to the full length of the bed.



A pvc fill tube is placed into the fill port of each bag. The sludge mixing manifold is set up near the bags and a 4" hose used to connect the manifold to the bag. This hose is equipped with a camlok disconnect so that it can be switched from bag to bag as they are filled.



The pumping process begins. The 6" line running from the submersible pump over to the mixing manifold is used to reduce pressure drop as the distance from pump to manifold is fairly long.



As the bags are filled the clean effluent flows out of the bag and back to the plant. The digester slowly begins to draw down.





The digester was being filled with new septic waste as it was being pumped down so it took several months to pump it completely down and give it a much needed cleaning. To put the same amount of biosolids over the sand drying beds without the bags would have been impossible. The bags allowed the beds to hold many times more sludge than normal.



The old digester is cleaned out and is now as good as new. The bags will be opened up and the solids either land applied or loaded out and hauled to the land fill. Many thousands of dollars and months of time and labor were saved by utilizing the **Blue River Technologies Geotextile Dewatering Bags.**