

Snowmass Water and Sanitation District Lagoon Cleanout



Snowmass Water and Sanitation District is located in the beautiful Colorado mountain resort area. They have a large lagoon that needed to be cleaned out and filled in. They investigated a number of options for dewatering the sludge so it could be hauled to a landfill for disposal. After looking at their options they settled on using geotextile dewatering bags. These bags are available in both large bed bag or ground bag styles or as bags that can fit into a standard landfill roll off. The Roll off bags were developed nearly 20 years ago by Blue River Technologies and since there is limited space available for the large ground bag bags Snowmass decided to use the container bag system.

The sludge is pumped from the lagoon up to a large holding tank. The tank is next to the maintenance building, located approx three hundred yards from the basin. From there the sludge will be pumped into the bags for dewatering.



A submersible pump suspended in the holding tank is used to pump the sludge over to the dewatering area. A second pump is installed in the tank to keep the sludge suspended. This also helps to keep the percent solids of the slurry consistent. .



The roll offs are standard 30 yd landfill roll offs, provide by the landfill. The bottom of the roll off is covered with wooden pallets to provide an air space under the bag. Drainage netting is then laid out over the pallets. This greatly increases the dewatering process.



The bag is placed in the roll off and tied up at the corners and in the middle with straps that are sewn in for that purpose. A 4" PVC fill pipe is inserted in the fill port and suspended over the roll off.



A Blue River Technologies Polymer Mixer is set up near the dewatering pad. This unit will mix and deliver a polymer solution to be used to flocculate the slurry prior to pumping it into the bags.



A Blue River Technologies 3" Flocculator and Stand is used to mix the made down flocculant solution with the sludge to form the good floc necessary for proper dewatering.



The sludge is pumped from the holding tank to the flocculator where the polymer solution is added. The sludge passes thru the flocculator and solids and water separate and then it is pumped into the bag for dewatering.

If the right polymer is selected, the proper dosage applied the solids will come together in clumps and the clear water surrounding the sludge can pass thru the geotextile bag without blinding.

Clear water begins to flow thru the bag and out of the roll off. The process is simple and effective but a few rules need to be applied. When done right the process will produce a cake that can be removed to the landfill.



As sludge is pumped into the bag the solids are retained inside the bag. Clear effluent drains out of the roll off and is returned to the headworks of the plant. When full the roll off is removed to the land-fill for disposal.

