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GEOTUBE® DEWATERING CONTAINERS
SLUDGE DEWATERING
CASE STUDY
LITHGOW (NSW) CITY COUNCIL SEWAGE TREATMENT PLANT

Geotube® dewatering technology was used to contain and dewater approximately 4,000 m³ of sewage sludge from Lithgow City Council's Lithgow Sewage Treatment Plant sludge lagoon.

The lower level sludge in the lagoon had remained in-situ for many years and as such had consolidated into an extremely compacted mass which required the use of an auger suction type dredge to excavate and pump sludge to the Geotube® dewatering containers.

It was imperative that the sludge was pumped at a consistent quality and flow to ensure that the cationic polymer being dosed in-line produced the desired solid : liquid separation and consequent timely dewatering of sludge within the Geotubes® units.

The Geotube® containers were laid out in a plastic lined bunded area where the Geotube® filtrate was captured and pumped back to the sludge lagoon. Sludge pumped into the Geotube® container will not reliquefy during wet weather as the surface tension of the Geotube® unit means that rain will not permeate the geotextile weave.

Solids were pumped at ~ 3% w/w and the Geotube® units were taken off-line to undergo final dewatering and consolidation once their contained solids reached ~ 14-15% w/w. Depending upon atmospheric conditions and the time allowed for drying within the Geotube® unit this type of sludge can reach > 30% solids w/w after which the bags are opened and the sludge excavated for disposal.

