



Sludge Removal Cost Analysis Using Bio Energizer Average Wastewater Lagoon Sludge Removal Costs in California

Based on data provided by a City in CA, the following are costs for dredging and hauling sludge from wastewater lagoons in California:

- 1) Dredging Costs- between \$220 and \$337 per dry ton of dredged, pressed and stacked (piled) sludge. Average cost per dry to excavate sludge and pile on site: **\$278.50** per dry ton
- 2) Trucking and Tipping Fees for hauling and land filling range between \$50 and \$75 per dry ton. Average cost to haul and land fill: **\$62.50** per dry ton
- 3) Total Average Cost for Sludge Removal and Disposal of sludge from wastewater lagoons in central California: **\$341** per dry ton

Dry Tons of Sludge Removed by Adding BIO ENERGIZER

10 acres x 43,560 ft²/acre x 2.170 ft x 7.48 gallons/ft³ x 8.34 lbs/gallon x .043 /2000 = **1,268 dry tons removed**

Cost of 1,268 dry tons of sludge removed by dredging and hauling

1,268 dry tons x \$341 = **\$432,388**

Cost of BIO ENERGIZER Used to date

BIO ENERGIZER was introduced directly to Pond # 2 in December. Pond # 2 realized 24 inches of sludge reduction in 12 months or about 2 inches of sludge reduction per month.

From 9/25 to 9/24 a City in California purchased **\$111,000** worth of BIO ENERGIZER

Cost to remove **1,268 tons** of sludge using BIO ENERGIZER: **\$111,000**

Savings in Sludge Removal Costs by Using BIO ENERGIZER:

$$\$432,388 - 111,000 = \underline{\underline{\$321,388}}$$