

Estimated Costs
Attachment B to the Spanish Flat Water District Staff Report

A. Groundwater Monitoring

ESTIMATED PROJECT COSTS - INSTALLATION AND DEVELOPMENT OF THREE GROUNDWATER MONITORING WELLS				
COST SUMMARY	Unit	Unit Cost	Units	Cost
Project Management	Once	635	1	635
Prepare Groundwater Workplan/SAP/H&S	Once	2315	1	2,315
Install Groundwater Monitoring Wells	Once	7933	1	7,933
Well Development/Pad Construction	Once	900	1	900
Groundwater Well Installation Report	Once	2270	1	2,270
			Grand Total	\$14,053

ESTIMATED PROJECT COSTS – QUARTERLY GROUNDWATER SAMPLING OF THREE GROUNDWATER MONITORING WELLS				
COST SUMMARY	Unit	Unit Cost	Units	Cost
Groundwater Sampling (Consultant)	Once	1080	1	1,080
Equipment (Small)	Once	175	1	175
Miscellaneous Equipment	Once	31	1	31
Chemical Analysis	Once	219	1	219
Quarterly Groundwater Sampling Report	Once	2165	1	2,165
			Grand Total	\$3,670

B. Installation of a Composite Liner in the Existing Storage Pond

Available Information	Pond Volume = 5.34 million gallons Pond Depth = 15 feet
Assumptions:	Pond berms to be constructed at 3:1 slope Shape of Pond – Rectangle Composite Liner to consist of a 60 mil HDPE Geomembrane underlain by a Geocomposite Layer
Calculated Liner Area (not including anchor trenches):	67,180 square feet
Estimated Costs (includes installation and materials):	HDPE Geomembrane @ \$0.70/square foot = \$47,026 Geocomposite Layer @ \$0.70 per square foot = \$47,026
Total Estimated Costs	\$94,052

HDPE Geomembrane and Geocomposite layer based on recent engineering cost estimates for landfill construction. Costs are only for the installation of a composite liner in the existing pond. Costs do not include pumping of wastewater from the pond and associated grading and the placing of any clay materials.