Part III

Attachment III-J

COST ESTIMATES FOR CLOSURE AND POST-CLOSURE CARE

Pescadito Environmental Resource Center

MSW No. 2374

Webb County, Texas

PESCADITO
ENVIRONMENTAL RESOURCE CENTER

Initial Submittal March 2015

Revised September 2015

Prepared For:
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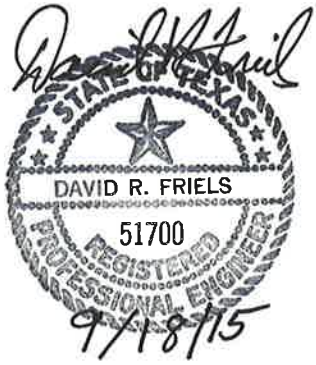

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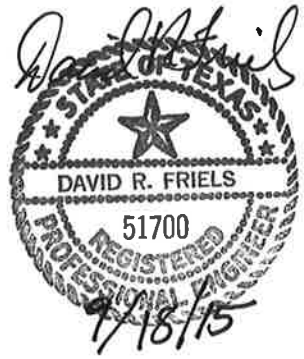
Closure and Post-Closure Care Cost Estimates



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APPENDIX III-J.1

CLOSURE AND POST-CLOSURE CARE COST ESTIMATES

INITIAL SUBMITTAL MARCH 2015

REVISED SEPTEMBER 2015

TOTAL CLOSURE AND POST-CLOSURE CARE COSTS			
	Closure	**Post-Closure**	**Total**
Landfill Unit	$4,582,185	$6,025,800	$10,607,985
Liquid Solidification Unit and Citizens Convenience Center	$40,994		
TOTAL:	$4,623,179	$6,025,800	**$10,648,979**

Note: All calculations are carried to full decimal values but numbers are shown rounded.

Closure Costs
Pescadito Environmental Resource Center

Permitted Waste Area:	Acres =	660.7	Square Feet =	28,780,092
Largest Area to be closed:	Acres =	88	Square Feet =	3,833,280

Item Description	Unit	Unit Cost	Quantity	Cost
Engineering				
Surveying Permitted Area, 660.7 Acres	acre	$ 45.00	660.7	$ 29,732
Evaluations, Plans, and Specifications	acre	$ 310	88	$ 27,280
CQA (survey, inspection & testing)	acre	$ 4,400	88	$ 387,200
Closure Certification, per event	LS	$ 9,000	1	$ 9,000
Total Engineering Costs				**$ 453,212**
Construction				
7" Erosion Layer, complete in place	cy	$ 5.00	82,817.78	$ 414,089
30" Infiltration Layer, complete in place	cy	$ 3.00	354,933.33	$ 1,064,800
General Fill, 1 foot, complete in place	cy	$ 3.00	141,973	$ 425,920
Seeding & Vegetation	acre	$ 1,750.00	88	$ 154,000
Drainage and Storm Water Control	acre	$ 2,600.00	88	$ 228,800
LFG Control System	acre	$ 15,000.00	88	$ 1,320,000
Liquid Solidification & Transport	cy	$ 18.50	1,800	$ 33,300
Backfill Liquid Solidification Unit	cy	$ 3.00	1,800	$ 5,400
Loading & Disposing Materials from Convenience Center at Landfill	Trip	$ 165.00	10	$ 1,650
Steam Cleaning Convenience Center	LS	$ 1,000.00	1	$ 1,000
Close Contaminated Water Storage	LS	$ 5,000.00	1	$ 5,000
Sub-Total Construction Costs				**$ 3,653,959**
Contingency		10%		$ 365,396
Contract Performance Bond		2%		$ 73,079
TCEQ Contract Admin/Legal Fees		1%		$ 36,540
Sub-Total Contingency & Admin Costs				**$ 475,015**
Total Construction Costs				**$ 4,128,974**
TOTAL CLOSURE COSTS:				**$ 4,582,185**

Notes:

1. Surveying costs is based on 660.7 ac permit area, while other costs are based on closure area
2. Final Cover Costs are based on utilizing the permitted WB Final Cover System and onsite soil.
3. Vegetation includes watering until vegetation is established
4. Storm Water Control includes construction of storm water storage pond
5. Assume materials from liquid stabilization and citizen convenience center will be disposed in landfil
6. Contaminated water storage will be closed and decommissioned during post-closure period

CBI
Revised September 2015

Post-Closure Care Cost Estimate
Pescadito Environmental Resource Center

Assume Closed Area = Permit Area: 660.7 Acres

Post-Closure Care Period Will Be: 30 Years

Number of GW Monitoring Wells: 38 Wells

No.	Item Description	Unit	Unit Cost	Quantity	Cost (30 yr)
1	Site Inspections by Engineer	Each	$ 3,000	45	$ 135,000
2	Engineering - Review of Monitoring Results and Correctional Plans	yr	$ 7,650	30	$ 229,500
3	Maintain Slopes	yr	$ 24,200	30	$ 726,000
4	Re-establish surface vegetation/cover	yr	$ 35,000	30	$ 1,050,000
5	GW Sampling & Analysis	well/event	$ 1,200	2,280	$ 2,736,000
6	Methane Monitoring	yr	$ 4,000	30	$ 120,000
7	Leachate Treatment for 5 years	gal/yr	$ 0.10	50,000	$ 25,000
	Sub-total				**$ 5,021,500**
	Contingency		10%		$ 502,150
	Administration		10%		$ 502,150
	Post-Closure Care Costs				**$ 6,025,800**

Assumptions:

1 Site Inspections - quarterly for 5 years and annually thereafter at an average cost of $3000 per trip

2 An engineer will review inspection and monitoring reports & prepare corrective action plans

3 Maintain slopes includes minor filling and grading for 10 acres per year at $2420 per acre

4 Approximately 20 acres of vegetation will be re-established each year at $1750 per Acre

5 GW sampling and analysis will be conducted semi-annually at $1200 per well per event

38 wells x 2 events per year x 30 years = 2280 well-events

6 Methane monitoring will be conducted quarterly at $1,000-per event, $4000 per year

7 Leachate treatment will include treating an average of 50,000 gal/yr for 5 years

Closure Cost Estimate
Liquid Stabilization Unit and Citizen's Convenience Center
Pescadito Environmental Resource Center

Facility Area, Acres: 1.1 Liquid Volume: 354,600 Gallons

ITEM DESCRIPTION	UNIT	UNIT COST	QUANTITY	COST
Surveying	LS	$ 1,000.00	1	$ 1,000
Engineering	LS	$ 1,000.00	1	$ 1,000
Loading and hauling soil for processing	cy	$ 1.00	800	$ 800
Processing liquid waste	hr	$ 60.00	24	$ 1,440
Loading and hauling solidified Waste	cy	$ 1.00	800	$ 800
Steam Cleaning of Concrete	LS	$ 500.00	1	$ 500
Excavating, filling and grading	cy	$ 1.60	18,000	$ 28,800
Seeding	acre	$ 731.82	4.0	$ 2,927
Sub-total				$ 37,267.28
Contingency			10%	$ 3,726.73
TOTAL CLOSURE COSTS:				**$ 40,994**

Assumptions:

1. Processing soil requirement is approximately one-half of liquid capacity.
2. Approximately one-half of capacity will be processed and hauled to active disposal area.
3. Average cuts and fills for final grading will be approximately 3 feet.