

**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  
Revised August 2016**

**Prepared For:  
Rancho Viejo Waste Management, LLC  
1116 Calle del Norte  
Laredo, TX 78041**

**Prepared by:  
CB&I Environmental and  
Infrastructure, Inc.**



**12005 Ford Rd, Suite 600  
Dallas, TX 75234**

This document is released for the purpose of permitting only under the authority of David R. Friels, P.E. #51700. It is not to be used for bidding or construction. Texas Registered Engineering Firm F-5650

# Table of Contents

1.0	INTRODUCTION .....	1
2.0	Closure and Post-Closure Care Costs.....	3
2.1	Closure Costs .....	3
2.2	Post-Closure Costs .....	3
3.0	Closure and Post-closure Care Cost Estimates.....	5
4.0	Financial Assurance And Cost Estimate Adjustments .....	6
4.1	Financial Assurance .....	6
4.2	Cost Estimate Revisions.....	6

## APPENDIX III-J.1

### Closure and Post-Closure Care Cost Estimates

This document is released for the purpose of permitting only under the authority of David R. Friels, P.E. #51700. It is not to be used for bidding or construction. Texas Registered Engineering Firm F-5650

## 1.0 INTRODUCTION

The cost estimate for closure and post-closure care of the Pescadito Environmental Resource Center (PERC) has been prepared consistent with the requirements of Title 30, Chapter 330, Subchapter L. The purpose of this attachment is to provide written cost estimates for a third party to close the largest waste area of the landfill that could potentially be open and to conduct post-closure care activities in accordance with the facilities approved Closure and Post-Closure Care Plans and consistent with §330.503 and 507. Additionally, costs are included for closure of the liquid waste solidification unit and the citizen convenience center in accordance with §330.505. Costs are also provided for decommissioning and closure of the contaminated water storage facility once it is no longer required. A copy of the approved Attachment III-J, Closure and Post-Closure Care Cost Estimates will be placed in the Site Operating Record prior to receipt of waste.

The landfill waste disposal area is divided into north and south units with areas of 320.5 and 340.2 acres, respectively. The total permitted waste disposal area is 660.7 acres and permitted solid waste volume is 223,316,800 cubic yards (solid waste and daily cover). The projected solid waste capacity is 195,960,492 tons. The facility is located in an arid climate and has a permitted ~~alternate water balance (WB)~~ final cover consisting of the following (from top down):

<u>Final Cover Layer</u>	<u>Class 1 Cells</u>	<u>Non-Class 1 Cells</u>
<u>Topsoil/vegetation</u>	<u>7 inches</u>	<u>7 inches</u>
<u>Soil evapotranspiration (storage)</u>	<u>30 inches</u>	<u>30 inches</u>
<u>Geosynthetic drain</u>	<u>Required</u>	<u>Not required</u>
<u>40 mil LLDPE geomembrane</u>	<u>Required</u>	<u>Not required</u>
<u>Intermediate cover soil</u>	<u>12 inches</u>	<u>12 inches</u>

- ~~7 inches of erosion layer~~
- ~~30 inches of infiltration layer~~

The liquid solidification unit and citizen convenience center will require closure but will not impact post-closure care costs.

PERC will retain the right of entry and maintain all rights-of-way to the closed landfill in order to conduct site maintenance, maintain final cover, vegetation, drainage and perform corrective action and remediation as needed.

Information on contacting the responsible person is provided in Attachment III-I, Post-Closure Care Plan.

**APPENDIX III-J.1**

**CLOSURE AND POST-CLOSURE CARE COST ESTIMATES**

**INITIAL SUBMITTAL MARCH 2015**

**REVISED SEPTEMBER 2015**

**REVISED AUGUST 2016**

<b>TOTAL CLOSURE AND POST-CLOSURE CARE COSTS</b>			
	<b>Closure</b>	<b>Post-Closure</b>	<b>Total</b>
Landfill Unit	<b>\$9,444,252</b>	\$6,025,800	<b>\$15,470,052</b>
Liquid Solidification Unit and Citizens Convenience Center	\$40,994		
<b>TOTAL:</b>	<b>\$9,485,246</b>	\$6,025,800	<b>\$15,511,046</b>

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
<b>Engineering</b>				
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	\$ 5,500	88	\$ 484,000
Closure Certification, per event	LS	\$ 9,500	1	\$ 9,500
<b>Total Engineering Costs</b>				<b>\$ 550,512</b>
<b>Construction</b>				
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
<b>40 Mil LLDPE Textured</b>	<b>SF</b>	<b>\$ 0.50</b>	<b>3,833,280.00</b>	<b>\$ 1,916,640</b>
<b>Geosynthetic Drainage Layer</b>	<b>SF</b>	<b>\$ 0.60</b>	<b>3,833,280.00</b>	<b>\$ 2,299,968</b>
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
<b>Sub-Total Construction Costs</b>				<b>\$ 7,870,567</b>
Contingency		10%		\$ 787,057
Contract Performance Bond		2%		\$ 157,411
TCEQ Contract Admin/Legal Fees		1%		\$ 78,706
<b>Sub-Total Contingency &amp; Admin Costs</b>				<b>\$ 1,023,174</b>
<b>Total Construction Costs</b>				<b>\$ 8,893,741</b>
<b>TOTAL CLOSURE COSTS:</b>				<b>\$ 9,444,252</b>

**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.~~
2. Geomembrane and geosynthetic drain will be used only over Class 1 cells. Cover will utilize 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 landfill
6. Contaminated water storage will be closed and decommissioned during post-closure period

CBI

Revised August 2016 ~~September 2015~~