

Redline / Strikeout Version
Part III, Appendix III-D.4
Landfill Operation and Site Life

Part III
Attachment III-D
Appendix III-D.4

LANDFILL OPERATION AND SITE LIFE

Pescadito Environmental Resource Center
MSW No. 2374
Webb County, Texas

PESCADITO
ENVIRONMENTAL RESOURCE CENTER

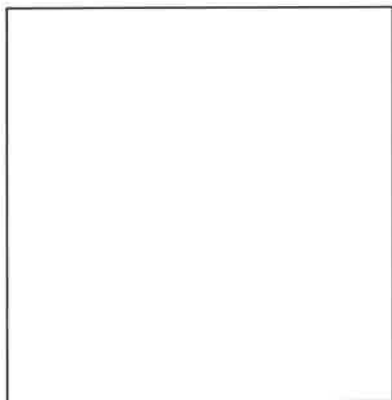
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1.0 SITE LIFE

The PERC Landfill will accept waste generated in Webb County, Texas, adjacent counties and surrounding areas and even remote locations delivered by transfer vehicles or rail. The PERC Landfill has been designed to provide efficient disposal capacity for waste generated from practically any area, including Mexico. The facility will have the ability to accept waste 24 hours per day, 7 days per week. It is projected that the landfill waste acceptance rate will begin at approximately 1,000,000 tons per year (2,740 tons per day) and increase to approximately 3,650,000 tons per year (10,000 tons per day) in seven years before leveling off to an annual increase of 1.0 percent per year for the remaining life of the facility. Based on this assumption, the life has been calculated at approximately 47 years. See Table III-D.4-1.

2.0 LANDFILL CAPACITY

~~Currently there is a single~~ ~~are two~~ waste disposal units within the PERC facility. ~~It is~~ ~~They are~~ termed the Northeast unit ~~and South unit, with the North unit~~. ~~The most northern cell in the unit (NE-1) is~~ planned to open first ~~with~~ ~~and~~ disposal operations proceeding ~~generally~~ in a southerly direction. Utilizing AutoCAD Civil 3D[®] software, the disposal capacity for the Northeast ~~and South unit s~~ is ~~14,306,484~~ ~~107,967,900~~ ~~and~~ ~~115,349,900~~ cubic yards ~~respectively~~. ~~These~~ volumes ~~was~~ ~~ere~~ generated from surfaces representing the top of the liner protective cover and the bottom of the final cover surface (top of waste grades) and ~~represents~~ the volume available for waste and daily cover.

3.0 AIRSPACE UTILIZATION

For planning purposes, an airspace utilization factor (AUF) of 0.8775 tons per cubic yard (65 pounds per cubic foot) has been used to project site life. The AUF is defined as the tons of waste received for disposal divided by the actual volume used for the waste and daily cover.

Pescadito Environmental Resource Center
Landfill Life Calculations
 Table III-D.4-1

Northeast Unit Capacity =	<u>14,306,484</u>	107966	Cubic Yards of Solid Waste and Daily Cover (Airspace)
South Unit Capacity =	115,349,900		Cubic Yards of Solid Waste and Daily Cover (Airspace)
	<u>14,306,484</u>		Total Cubic Yards Airspace
Airspace Utilization Factor =	0.8775 Tons Solid Waste per Cubic Yard Airspace		
Northeast Unit Capacity =	<u>12,553,940</u>		Tons Solid Waste
South Unit Capacity =	101,219,537		Tons Solid Waste
Annual Increase after year 7 =	1.00%		
Operating Days per year =	365		

Year	Tons per day	Tons per year	Airspace Consumed per year (CY)	Cumulative Airspace Consumed (CY)	Airspace Remaining (CY)	Remaining Life based on current year waste acceptance (Years)
1	2,740	1,000,000	1,139,601	1,139,601	<u>13,166,883</u>	12
2	3,288	1,200,000	1,367,521	2,507,123	<u>11,799,361</u>	9
3	3,836	1,400,000	1,595,442	4,102,564	<u>10,203,920</u>	6
4	4,384	1,600,000	1,823,362	5,925,926	<u>8,380,558</u>	5
5	4,932	1,800,000	2,051,282	7,977,208	<u>6,329,276</u>	3
6	5,479	2,000,000	2,279,202	10,256,410	<u>4,050,074</u>	2
7	10,000	3,650,000	4,159,544	14,415,954	<u>(109,470)</u>	(0)
8	10,100	3,686,500	4,201,140	18,617,094	(4,310,610)	(1)
9	10,201	3,723,365	4,243,151	22,860,245	(8,553,761)	(2)
10	10,303	3,760,599	4,285,583	27,145,828	(12,839,344)	(3)
11	10,406	3,798,295	4,328,438	31,474,266	(17,167,782)	(4)
12	10,510	3,836,187	4,371,723	35,845,989	(21,539,505)	(5)
13	10,615	3,874,549	4,415,440	40,261,429	(25,954,945)	(6)
14	10,721	3,913,294	4,459,594	44,721,023	(30,414,539)	(7)
15	10,829	3,952,427	4,504,190	49,225,213	14,306,484,174,091,600	3,176,261,052
16	10,937	3,991,951	4,549,232	53,774,445	14,306,484,169,542,400	3,144,812,922
17	11,046	4,031,871	4,594,725	58,369,170	14,306,484,164,947,600	3,113,676,159
18	11,157	4,072,189	4,640,672	63,009,842	14,306,484,160,307,000	3,082,847,681
19	11,268	4,112,911	4,687,078	67,696,920	14,306,484,155,619,900	3,052,324,436
20	11,381	4,154,040	4,733,949	72,430,869	14,306,484,150,885,900	3,022,103,401
21	11,495	4,195,581	4,781,289	77,212,158	14,306,484,146,104,600	2,992,181,584
22	11,610	4,237,537	4,829,102	82,041,260	14,306,484,141,275,500	2,962,556,023
23	11,726	4,279,912	4,877,393	86,918,652	14,306,484,136,398,100	2,933,223,784
24	11,843	4,322,711	4,926,167	91,844,819	14,306,484,131,472,000	2,904,181,963
25	11,961	4,365,938	4,975,428	96,820,247	14,306,484,126,496,600	2,875,427,685
26	12,081	4,409,598	5,025,183	101,845,430	14,306,484,121,471,400	2,846,958,103
27	12,202	4,453,694	5,075,434	106,920,864	14,306,484,116,395,900	2,818,770,398
28	12,324	4,498,231	5,126,189	112,047,053	14,306,484,111,269,700	2,790,861,780
29	12,447	4,543,213	5,177,451	117,224,503	14,306,484,106,092,300	2,763,229,484
30	12,572	4,588,645	5,229,225	122,453,728	14,306,484,100,863,100	2,735,870,775
31	12,697	4,634,531	5,281,517	127,735,246	14,306,484,095,581,600	2,708,782,944
32	12,824	4,680,877	5,334,333	133,069,578	14,306,484,090,247,200	2,681,963,310
33	12,953	4,727,686	5,387,676	138,457,254	14,306,484,084,859,500	2,655,409,217
34	13,082	4,774,962	5,441,553	143,898,807	14,306,484,079,418,000	2,629,118,036
35	13,213	4,822,712	5,495,968	149,394,775	14,306,484,073,922,000	2,603,087,163
36	13,345	4,870,939	5,550,928	154,945,703	14,306,484,068,371,100	2,577,314,022
37	13,478	4,919,649	5,606,437	160,552,140	14,306,484,062,764,700	2,551,796,060
38	13,613	4,968,845	5,662,501	166,214,641	14,306,484,057,102,200	2,526,530,752
39	13,749	5,018,533	5,719,126	171,933,768	14,306,484,051,383,000	2,501,515,595
40	13,887	5,068,719	5,776,318	177,710,085	14,306,484,045,606,700	2,476,748,113
41	14,026	5,119,406	5,834,081	183,544,166	14,306,484,039,772,600	2,452,225,853
42	14,166	5,170,600	5,892,422	189,436,588	14,306,484,033,880,200	2,427,946,388
43	14,308	5,222,306	5,951,346	195,387,934	14,306,484,027,928,900	2,403,907,314
44	14,451	5,274,529	6,010,859	201,398,793	14,306,484,021,918,000	2,380,106,250.6
45	14,595	5,327,274	6,070,968	207,469,761	14,306,484,015,847,000	2,356,540,841.2
46	14,741	5,380,547	6,131,678	213,601,439	14,306,484,009,715,400	2,333,208,752.7
47	14,889	5,434,353	6,192,994	219,794,433	14,306,484,003,522,400	2,310,107,674.9
48	15,038	5,488,696	6,254,924	226,049,358	14,306,483,997,267,400	2,287,235,320.7