

An employee-owned company

April 28, 2010

Susan J. Pelz, P.E. Solid Waste Manager Southwest District 13051 North Telecom Parkway Temple Terrace, Florida 33637

RE: Lena Road Landfill, Manatee County

WACS ID No.: SWD-41-44795

Landfill Operation Permit No.: 39884-010-SO/01

Landfill Capacity Report for 2010

Dear Ms. Pelz:

PBS&J is submitting this Landfill Capacity Report for 2010 on behalf of Manatee County as required by Landfill Operation Permit Specific Condition D.1.e. Capacity Report. Based on the topographic map developed from the January 25, 2010 aerial photograph, we estimate that the landfill has a remaining life of 31.9 years. We used the average filling rate for the past 12 years. The year 2008 and 2009 filling rates were skewed due to the downturn in the economy and the Stage III Landfill expansion excavation which increased the landfill volume by approximately 225,000 cubic yards. Enclosed prints of the following landfill topographies and aerial photographs taken on January 25, 2010, and spreadsheet and chart summarizing the landfill life estimate.

Dept. Of Environmental Protection

Southwest District

- Stage I, II and III Landfill topography
- Stage I Landfill topography
- Stage II Landfill topography
- Stage III Landfill topography
- Landfill property aerial photograph with 1 mile surrounding area
- Stage I Landfill aerial photograph
- Stage II Landfill aerial photograph
- Stage III Landfill aerial photograph
- Spreadsheet entitled "Manatee County Lena Road Landfill Remaining Landfill Life Estimate 2010" dated April 27, 2010.
- Chart 1 "Plot of Cumulative Landfill Volume Consumed and Tons In place September 9, 1991-January 25, 2010"

Sincerely,

Joseph L. Miller, P.E.

Project Engineer

Ce: Gus DiFonzo, Manatee County w/ spread sheet and chart only

File 010093191 0100

u:\so\projects\manatee ii\wa-1 monitoring\aerial photo 2010\landfill.life ltr to fdep apr 28 2010.doc

## Manatee County Lena Road Landfill **REMAINING LANDFILL LIFE ESTIMATE - 2010 APRIL 27, 2010**

Landfill	Estimated Design Capacity Cubic Yards	Estimated Volume Used as of February 4, 2009 Cubic Yards	Estimated Volume Used Feb. 4, 2009 to Jan. 25, 2010 Cubic Yards	Estimated Volume Remaining as of January 25, 2010 Cubic Yards
Stage I	13,179,520	13,158,153	Note 2	-
Stage II	12,705,440	-	-	12,705,440
Stage III	6,751,640	3,268,600	307,700	3,175,340
Totals	32,636,600	16,426,753	307,700	15,880,780

Remaining Landfill Life in Years Based on Annualized Filling Rate of 398,000 CY for 2010 (Note 3) Estimated Final Year of Landfill Based on Filling Rate for 2010 (Note 3)

39.9 2050

Remaining Landfill Life in Years Based on Ave. Annual Filling Rate of 497,977 CY from 1999 to 2010 Estimated Final Year of Landfill Based on Average Annual Filling Rate from 1999 to 2010

31.9 2042

## Notes:

- 1. Landfill volumes were calculated by I.F. Rooks & Associates, Inc. based on an aerial photograph taken on January 25, 2010.
- 2. Solid waste disposal moved from the Stage I Landfill to the Stage III Landfill on January 15, 2004.
- 3. The 2009 and 2010 annual filling rate as calculated by the change in landfill volume is skewed. The Stage III Landfill foundation excavation increased the landfill volume by approximately 225,000 cubic yards.

The annual filling rate for the previous year was estimated based on landfilling 274,784 tons at an average density of 0.69 tons per cubic yard.

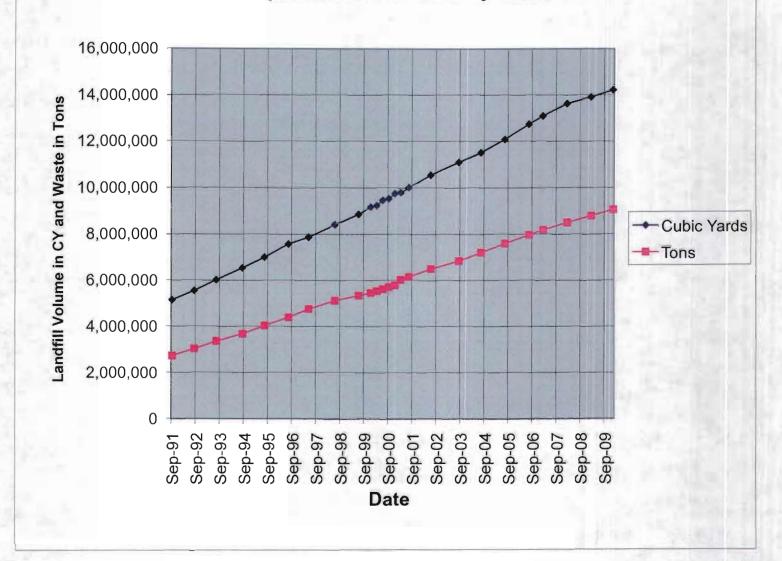
Year	FILLING RATE		SOLID WASTE TONNAGE LANDFILLED		
	Annualized Rate in CY	Percent Change	Annualized Tonnage Landfilled	Percent Change	
1999	461,500		338,746		
2000	610,800	32.4%	339,358	0.2%	
2001	518,100	-15.2%	363,925	7.2%	
2002	479,600	-7.4%	340,977	-6.3%	
2003	479,500	0.0%	343,500	0.7%	
2004	446,800	-6.8%	363,387	5.8%	
2005	569,200	27.4%	389,258	7.1%	
2006	677,800	19.1%	376,493	-3.3%	
2007	571,942	-15.6%	350,072	-7.0%	
2008	552,491	-3.4%	329,055	-6.0%	క్ట
2009 *	292,508	-47.1%	302,374	-8.1%	rth <sub>V</sub>
2010 *	315,479	7.9%	274,784	-9.1%	/es
Total	5,975,720 ci	ubic yards	4,111,929	tons	Q
Average	497,977 ci	ubic yards filled per year	342,661	tons per year	District

\* Manatee County excavated approximately 225,000 cubic yards from the foundation of the Stage III Landfill in 2009 and 2010. This skewed the filling rate as calculated by using the change in volume between the aerial photographs taken in 2008, 2009 and 2010.

Dept. Of Environmental Protection

<sup>\*\*</sup> The long-term landfill density increases due to consolidation and biodegradation of the solid waste.

Chart 1
Manatee County Lena Road Landfill
Plot of Cumulative Landfill Volume Consumed and Tons In-place
September 9,1991 - January 25, 2010



## ATTENTION



## OVERSIZED DRAWINGS HAVE BEEN SCANNED SEPARATELY PLEASE SEE:

- Annual topographic survey & capacity report: Plan 1-stage I aerial survey
- ANNUAL TOPOGRAPHIC SURVEY & CAPACITY REPORT: PLAN 1-STAGE II AERIAL SURVEY
- ANNUAL TOPOGRAPHIC SURVEY & CAPACITY REPORT: PLAN 1-STAGE III AERIAL SURVEY
- ANNUAL TOPOGRAPHIC SURVEY & CAPACITY REPORT: PLAN 1-STAGES I, II, III AERIAL SURVEY
- Annual topographic survey & capacity report: Plan 1-stage I aerial Photograph
- Annual topographic survey & capacity report: Plan 1-stage II Aerial Photograph
- Annual topographic survey & capacity report: Plan 1-stage III Aerial Photograph
- ANNUAL TOPOGRAPHIC SURVEY & CAPACITY REPORT: PLAN 1-STAGES I, II, III AERIAL PHOTOGRAPH