

# **JONES EDMUNDS**

276596

September 1, 2006

Dept. of Environmental  
Protection

SEP 01 2006

Southwest District

Ms. Susan J. Pelz, P.E.  
Florida Department of Environmental Protection  
Southwest District  
13051 North Telecom Parkway  
Temple Terrace, Florida 33637-0926

Subject: Remaining Disposal Capacity and Site Life  
Phases I-VI and Expansion Area (Sections 7 and 8)  
Southeast County Landfill, Hillsborough County, Florida  
Existing Permits No. 35435-006-SO and 35435-007-SO  
Jones Edmunds Project No. 08449-022-01

Dear Ms. Pelz:

On behalf of the Hillsborough County Solid Waste Management Department (SWMD), Jones Edmunds has prepared the remaining disposal capacity and site life analyses for Phases I-VI (Permit No. 35435-006-SO) and the Expansion Area (Permit No. 35435-007-SO), Southeast County Landfill, Hillsborough County, Florida. In accordance with Rule 62-170.500 (13)(c), the annual estimate of remaining life and capacity includes only permitted landfill cells at the Southeast County Landfill. Therefore, the remaining disposal capacity and site life calculations provided herein include only Phases I-VI (SCLF) and Sections 7 and 8 (Expansion Area), based on the July 25, 2006 aerial topographic survey.

The aerial topographic survey was performed by Pickett and Associates, Inc. (Pickett) on July 25, 2006 (see Attachment A). As shown from the July 25, 2006 topographic survey, Phases I-VI and the Expansion Area (Section 7) have been filled in general accordance with the permitted sequence plans. Waste filling in Section 8 of the Expansion Area has not yet begun.

## Remaining Disposal Capacity

Using AutoCad software, gross remaining airspace volumes were calculated using the permitted final buildout contours for the Phases I-VI Area (SCLF), Sections 7 and 8 (Expansion Area) permitted final buildout contours, and the July 2006 topographic survey. The gross remaining airspace for the SCLF and the Expansion Area is 8,873,124 cubic yards (cy) and 386,266 cy, respectively.

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Remaining Disposal Capacity and Site Life for the SCLF (Phases I-VI)

In estimating the remaining airspace and site life for the SCLF, annual projected disposal rates were developed by the SWMD based on population projections for the SCLF service area. The annual waste generation rate was calculated using a conservative waste generation rate of 0.55 tons per person. Based on the projected increase in population per year, the projected disposal rate also increases as shown on Table 1.

The projected disposal rate for 2006 is 625,983 tons. Given that this analysis only includes August through December 2006, the projected disposal rate for the remainder of 2006 is 260,826 tons. In addition, for the remainder of 2006 and the first 2.6 months in 2007, waste is diverted to the Expansion Area. As shown in Table 1, during the remainder of 2006, 50 percent of the waste is diverted to the Expansion Area. During 2007, only 22 percent is diverted to the Expansion Area as a result of the Expansion Area (Sections 7 and 8) reaching capacity. Therefore, as shown in Table 1, given the remaining disposal capacity of 8,873,124 cy, the remaining site life for the SCLF is approximately 9 years and 7 months (August 2006 through February 2016). Assumptions used in calculating the remaining site life are shown at the bottom of Table 1.

Remaining Disposal Capacity and Site Life for the Expansion Area (Sections 7 and 8)

In estimating the remaining airspace and site life for the Expansion Area, annual projected disposal rates were developed by the SWMD based on population projections for the SCLF service area. The annual disposal rate was calculated using a conservative waste generation rate of 0.55 tons per person. Based on the projected increase in population per year, the projected disposal rate also increases as shown on Table 1.

The projected disposal rate for 2006 is 625,983 tons. Given that this analysis only includes August through December 2006, the projected disposal rate for the remainder of 2006 is 260,826 tons. In addition, for the remainder of 2006 and the first 2.6 months in 2007, waste is diverted to the Expansion Area. As shown in Table 1, during the remainder of 2006, 50 percent of the waste is diverted to the Expansion Area. During 2007, only 22 percent is diverted to the Expansion Area as a result of the Expansion Area (Sections 7 and 8) reaching capacity. Therefore, as shown in Table 1, given the remaining disposal capacity of 386,266 cy, the remaining site life for the Expansion Area is approximately 7 months (August 2006 through February 2007). Assumptions used in calculating the remaining site life are shown at the bottom of Table 1.

Ms. Susan Pelz, P.E.  
September 1, 2006  
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Please call us if you have any questions or require additional information.

Sincerely,



Richard A. Siemering  
Project Manager



Joseph H. O'Neill, P.E.  
Solid Waste Department Manager

cc: Patricia Berry, SWMD  
Larry Ruiz, SWMD  
Ron Cope, EPC



**TABLE 1**  
**PROJECTED REMAINING AIR SPACE AND SITE LIFE**  
**PHASES I-VI AND EXPANSION AREA (SECTIONS 7 AND 8)**  
**SOUTHEAST COUNTY LANDFILL**  
**HILLSBOROUGH COUNTY, FLORIDA**  
**SEPTEMBER 1, 2006**

<b>Year</b>	<b>Projected (1) Disposal Rate (TON)</b>	<b>Waste To SCLF (TON)</b>	<b>Waste To SCLF (2,4) (CY)</b>	<b>Waste To Expansion (TON)</b>	<b>Waste To Expansion (2,3,4,6) (CY)</b>	<b>Remaining Site Life for SCLF (5) (CY)</b>	<b>Remaining Site Life for Expansion (5) (CY)</b>
						<b>8,873,124</b>	<b>386,266</b>
2006	260,826	130,413	186,304	130,413	186,304	8,686,820	199,962
2007	639,051	499,098	712,998	139,952	199,932	7,973,822	30
2008	650,557	650,557	929,366	0	0	7,044,456	0
2009	660,286	660,286	943,266	0	0	6,101,190	0
2010	669,196	669,196	955,994	0	0	5,145,196	0
2011	677,534	677,534	967,906	0	0	4,177,290	0
2012	685,872	685,872	979,817	0	0	3,197,473	0
2013	694,210	694,210	991,729	0	0	2,205,744	0
2014	702,548	702,548	1,003,640	0	0	1,202,104	0
2015	710,886	710,886	1,015,551	0	0	186,553	0
2016	130,587	130,587	186,553	0	0	0	0

1. Projected disposal rate tonnages provided by Hillsborough County.
2. Projected disposal rate for 2006 based on 5 months remaining in 2006 (August-December).
3. Percent diversion to Expansion Area based on approximately 2.6 months in 2006.
4. Cubic yard conversion from tons based on 1,400 lb/cy.
5. Remaining air space based on Pickett's July 25, 2006 aerial topographic survey and permitted final buildout contours.
6. Remaining site life in 2007 for the Expansion area is approximately two months.
7. Remaining volume and site life calculations based on gross remaining airspace. Cover soils have not been included in the calculations.

Dept of Environment  
Protection

SEP 01 2006

Southwest District

**ATTACHMENT A  
PICKETT AERIAL  
TOPOGRAPHIC SURVEY**



**PICKETT**  
SURVEYING & PHOTOGRAMMETRY

## REPORT OF SURVEY

NOTE: THIS REPORT AND ACCOMPANYING MAP ARE NOT FULL AND COMPLETE WITHOUT THE OTHER AND ARE NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER

**PICKETT & ASSOCIATES PROJECT NO.: 11994-5**

**TITLE/TYPE OF SURVEY: TOPOGRAPHIC SURVEY**

**DATE OF IMAGERY: 7/25/06**

**SUBJECT: SE LANDFILL, HILLSBOROUGH COUNTY**

**CLIENT: WASTE MANAGEMENT OF FLORIDA, INC**

**ACCURACY STATEMENT:** The following stated plus or minus tolerances encompass a minimum of 90% of the difference between photogrammetrically measured values and ground truth of all well-identified features. Mapped features meet or exceed the Florida Minimum Technical Standards.

### **VERTICAL:**

Contours have been measured to an estimated vertical positional accuracy of 0.5'. Spot elevations and well-identified features have been measured to an estimated vertical positional accuracy of 0.25'.

### **HORIZONTAL:**

Well-identified features have been measured to an estimated horizontal positional accuracy of 1.6'.

### **MAP PLOTTING:**

This map is intended to be displayed at a scale of 1" = 50' (1:600) or smaller.

### **DATUM:**

#### **HORIZONTAL:**

Coordinates are referenced to the West Zone of the Florida State Plane Coordinate System, NAD 83/90 adjustment. Referenced to Hillsborough County Horizontal Control Monuments LW-E and LW-D.

#### **VERTICAL:**

Elevations are to National Geodetic Vertical Datum of 1929, and are referenced to Hillsborough County Horizontal Control Monuments LW-E and LW-D.

# PICKETT & ASSOCIATES, INC.

## Feature List

(THESE FEATURES ARE REPRESENTED BY SYMBOLS NOT TO SCALE)		<u>LEGEND:</u> (THESE FEATURES ARE TO SCALE)			
△ CONTROL	⊞ CATCH BASIN	— CURB	— PIPELINE	— RECREATION	
○ UTILITY POLE	⊙ VALVE	▬ PAVED ROAD	— EDGE OF GROVE	— EDGE OF WATER	
✱ LIGHT POLE	⊞ ELECTRICAL	▬ CONCRETE SURFACE	— SWAMPLINE	— OBSCURED CONTOUR	
⊙ TRAFFIC LIGHT	⊞ AIR CONDITIONER	▬ UNPAVED ROAD	— DEPRESSION CONTOUR		
△ SIGN	⊞ MISCELLANEOUS SYMBOL	— GUARDRAIL			
○ POST	K CULVERT	— WALL			
✱ FLAG	⊞ SWAMP/MARSH	— RAILROAD			
⊞ MAIL BOX	⊙ TREE	— STRUCTURE			
⊙ GUYWIRE	✱ PALM	— TREE LINE			
⊙ MANHOLE	○ SHRUB	— SHRUB LINE			
⊙ HYDRANT					

(THESE INFORMATIVE TABLES ARE NOT SCALE DEPENDENT)


W.E. WATER ELEVATION  
\* 120.1 TYPICAL SPOT ELEVATION  
\* 120.1 OBSCURED SPOT ELEVATION

## Measurement Methods:

In areas where vegetation makes the ground difficult to determine contours are shown dashed and do not meet the above stated accuracy. Contours are removed from areas where vegetation completely hides the ground. This map is limited to those features visible on aerial photography.

## Limitations:

This mapping should be used for preliminary design work only and should not replace an actual field survey where the required accuracy is greater than the accuracy stated in this report. No responsibility is assumed for areas outside the contracted scope.

  
T. JEFFREY YOUNG, PSM, CP  
FLORIDA REGISTRATION NO. 5440  
PICKETT AND ASSOCIATES, INC.  
FLORIDA REGISTRATION NO. 364

7/25/06  
SURVEY DATE



**Phases 1-6 Remaining Volume Calculations**  
**Final buildout vs July 2006 survey**

**Hillsborough County Southeast Landfill**

Site Volume Table: Unadjusted						
Site	Stratum	Surf1	Surf2	Cut	Fill	Net
				yards	yards	yards
Method						
=====						
phases 1 thru 6						
				remain vol from 7 2006 to bo	exist july 2006 1-6	final buildout 1-6
				83,919	8,957,044	8,873,124 (F) Composite

**Calc's performed by GRD III on Thursday, August 24, 2006**  
**Land Desktop Development 2006**



**Richard Siemering**

**From:** Rick Demint  
**Sent:** Tuesday, August 29, 2006 11:34 AM  
**To:** Richard Siemering  
**Subject:** section 7 and 8 remaining vol as of july 2006.doc with 3d surface area

**Hillsborough County Southeast Landfill**  
**section 7 and 8 remaining volume as of July 2006**

**Composite**

Current stratum: remaining volume site a 7and8

Site name = site a

Cut = 29982 yards Fill = 416248 yards

Net = 386266 yards FILL

**Grid**

Current stratum: remaining vol site a 7and8

Site name = site a

Cut = 29719 yards Fill = 415391 yards

Net = 385672 yards FILL

3D surface area: 874692.64 ft<sup>2</sup>

Note: Volumes are calculated using 4:1 side slopes on 7 and 8 final build out in which created cut on the southwest upper slope of section 7.



8/30/2006



Plotted: 8/31/06 8:17am RDemint

N:\08449 Hillsborough County\022-SELF Misc Engineering\Volumes and Surveys\dwg\test.dwg

Edited: 09/09/00 0:00 login

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GRAPHIC SCALE  
0 150 300 600  
SCALE IN FEET

Dept. of Environmental  
Protection  
SEP 01 2006  
Southwest District

Prepared by:



Flight Date: 7/25/06

SURVEYOR'S NOTES:

- 1.) North, the grid, and the coordinates shown hereon are referenced to the West Zone of the Florida State Plane Coordinate System, NAD 83, 1990 adjustment.
- 2.) Elevations are to National Geodetic Vertical Datum of 1929.
- 3.) This topographic survey was prepared by photogrammetric methods. See the attached report for map accuracy and surveyor's signature and seal. This map is limited to those features visible on aerial photography.

					DESIGNED	JHO/RAS
					DRAWN	GRD
					CHECKED	JHO/JPA
LTR.	DATE	REVISIONS	BY	APPRD.		

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HILLSBOROUGH COUNTY  
SOLID WASTE MANAGEMENT DEPARTMENT  
SOUTHEAST COUNTY LANDFILL

AERIAL PHOTOGRAMMETRIC SURVEY

CERTIFICATE OF AUTHORIZATION #1841	DATE	PROJECT NO.
APPROVED BY	8/2006	08449-021-01
P.E. #	SCALE	DWG. NO.
	AS SHOWN	