September 1, 2011

Dept. of Environmental Protection
SEP 01 2011
Southwest District

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

RE: Remaining Disposal Capacity and Site Life - Reporting Year 2011
Phases I-VI and Capacity Expansion Area (Sections 7, 8, and 9)
Southeast County Landfill - Hillsborough County, Florida
Permit No.: 35435-014-S0/01

Dear Ms. Pelz:

On behalf of the Hillsborough County Public Utilities Department, Solid Waste Management Group (SWMG), HDR has prepared the remaining disposal capacity and site life estimates for Phases I-VI and the Capacity Expansion Area (CEA) (Permit No 35435-014-S0/01- SO), Southeast County Landfill (SCLF), Hillsborough County, Florida in accordance with Rule 62-701.500(13)(c) and Specific Condition Part C.13.c of the facility's solid waste operations permit.

Annual Topographic Survey and Remaining Capacity Analysis

The aerial topographic survey was performed by Pickett and Associates, Inc. (Pickett) on July 5, 2011 (see Attachment A) and demonstrates that Phases I-VI and the CEA Sections 7, 8, and 9 have been filled in general accordance with the permitted operations sequence plans including that the sides slopes are no greater than 4H to 1V (Phases I-VI) and 3H to 1V (CEA Sections 7, 8 , and 9) and the top elevations do not exceed the permitted maximum design height elevation of 255 feet NVGD and 285 feet NGVD for Phases I-VI and the CEA Sections 7, 8, and 9, respectively. In addition, waste has not been placed outside the permitted limits of waste/liner in both Phases I-VI and the CEA Sections 7, 8, and 9.

Using AutoCAD software, the gross remaining airspace volumes were calculated using the permitted conceptual final build-out contours for the Phases I-VI and the CEA Sections 7, 8, and 9, and comparing the surfaces to the July 5, 2011 topographic survey (refer to Attachment A for volume summaries). The estimated gross remaining airspace for the Phases I-VI and the CEA Sections 7, 8, and 9 is 9,210,821 cubic yards (CY) based on the airspace analyses performed using AutoCAD.

Assumptions used in calculating the remaining site life are discussed in the notes provided in Table 1. Based on the information provided by the SWMG, approximately 253,668 tons of municipal solid waste (MSW) was disposed of at the SCLF between July 1, 2010 and June 30, 2011. Of the 253,668 tons disposed at the SCLF during this time period, 89,858 tons were disposed in Phases I-VI (all in 2010), and 163,810 tons in CEA Sections 7, 8, and 9. Assuming an apparent waste density of 1,900 pounds per cubic yard (PCY), the estimated annual airspace consumed in cubic yards was 267,019 CY of which 94,587 CY of airspace was consumed in Phases I-VI and 172,432 CY in CEA Sections 7, 8, and 9. The apparent waste density is defined as the actual waste tonnage disposed divided by the volume of airspace consumed by both waste and daily cover soil.

Remaining Disposal Capacity and Site Life for the CEA (Section 7, 8, and 9)

The estimated remaining airspace of CEA Sections 7, 8, and 9 is 1,657,673 CY which was calculated by subtracting the final cover soil volume of 176,056 cubic yards from the gross remaining air space of 1,833,729 CY (see Table 1 attached). Using the assumptions listed on Table 1, the remaining site life for the CEA Sections 7, 8, and 9 was estimated to be approximately 10.8 years from July 1, 2011 (refer to Table 1 attached). The estimated remaining site life will fluctuate depending on the future waste composition and disposal rates.

Remaining Disposal Capacity and Site Life for Phases I-VI

The estimated remaining airspace of Phases I-VI is 6,659,077 CY which was calculated by subtracting the final cover soil volume of 718,015 CY from the gross remaining air space of 7,377,092 CY (see Table 1 attached)). Using the assumptions listed on Table 1, the remaining site life for Phases I-VI was estimated to be approximately 25.9 years from July 1, 2011 (refer to Table 1 attached). The estimated remaining site life will fluctuate depending on the future waste composition and disposal rates.

Please contact me or Rich anytime at 813-282-2358 or 813-262-2776 if you have questions or require additional information.

Sincerely,
HDR Engineering, Inc.

Jason Timmons, PE
Solid Project Manager
FL PE# 65869
HDR CA# 4213

Richard Siemering
Solid Waste Department Manager

Attachments (2) – Table 1 and Topographic Survey (Attachment A)

Xc: Patricia Berry, SWMG
Larry Ruiz, SWMG
Ron Cope, EPC

Table 1

Projected Remaining Capacity and Site Life
Phase I-VI and Capacity Expansion Area (Sections 7, 8, and 9)
Southeast County Landfill
Hillsborough County, Florida
August 30, 2011

Phases I - VI Remaining Gross Air Space[4] =	7,377,092	CY	Phases I - VI Estimated Final Cover Soils =	718,015	CY
CEA Sections 7-9 Remaining Gross Air Space[4] =	1,833,729	CY	CEA Section 7-9 Estimated Final Cover Soils =	176,056	CY
Total Gross Remaining Air Space =	9,210,821	CY			

Design Life Estimates from Table Below:			Total Remaining Net Air Space (Gross Air Space - Final Cover Soils) =	8,316,750	CY
CEA Sections 7-9 =	10.8	years	Annual Disposal Rate Increase =	1.5%	
Phases I-VI =	25.9	years	Apparent Waste Density =	1,900	lbs/CY

Year	Projected Disposal Rates[1,2]	Diversion to Section 7-9	Diversion to Phases I-VI	Waste to Phases I-VI	Waste to Phases I-VI	Waste to Sections 7-9	Waste to Sections 7-9	Remaining Capacity for Phases I-VI[5]	Remaining Capacity for Sections 7-9[5]
	Tons	%	%	Tons	CY[3]	Tons	CY[3]	CY	CY
2011						Beginning Capacity as of July 5, 2011		6,659,077.00	1,657,673.00
2011	127,000.00	100%	0%	0.00	0.00	127,000.00	133,684.21	6,659,077.00	1,523,988.79
2012	254,000.00	50%	50%	127,000.00	133,684.21	127,000.00	133,684.21	6,525,392.79	1,390,304.58
2013	257,810.00	50%	50%	128,905.00	135,689.47	128,905.00	135,689.47	6,389,703.32	1,254,615.11
2014	261,677.15	50%	50%	130,838.58	137,724.82	130,838.58	137,724.82	6,251,978.50	1,116,890.29
2015	265,602.31	50%	50%	132,801.15	139,790.69	132,801.15	139,790.69	6,112,187.81	977,099.60
2016	269,586.34	50%	50%	134,793.17	141,887.55	134,793.17	141,887.55	5,970,300.26	835,212.05
2017	273,630.14	50%	50%	136,815.07	144,015.86	136,815.07	144,015.86	5,826,284.40	691,196.19
2018	277,734.59	50%	50%	138,867.29	146,176.10	138,867.29	146,176.10	5,680,108.30	545,020.09
2019	281,900.61	50%	50%	140,950.30	148,368.74	140,950.30	148,368.74	5,531,739.56	396,651.35
2020	286,129.12	50%	50%	143,064.56	150,594.27	143,064.56	150,594.27	5,381,145.29	246,057.08
2021	290,421.05	50%	50%	145,210.53	152,853.19	145,210.53	152,853.19	5,228,292.10	93,203.89
2022	294,777.37	30%	70%	206,233.67	217,088.08	88,543.70	93,203.89	5,011,204.03	0.00
2023	299,199.03	0%	100%	299,199.03	314,946.35	0.00	0.00	4,696,257.68	0.00
2024	303,687.02	0%	100%	303,687.02	319,670.54	0.00	0.00	4,376,587.14	0.00
2025	308,242.32	0%	100%	308,242.32	324,465.60	0.00	0.00	4,052,121.54	0.00
2026	312,865.96	0%	100%	312,865.96	329,332.58	0.00	0.00	3,722,788.95	0.00
2027	317,558.94	0%	100%	317,558.94	334,272.57	0.00	0.00	3,388,516.38	0.00
2028	322,322.33	0%	100%	322,322.33	339,286.66	0.00	0.00	3,049,229.72	0.00
2029	327,157.16	0%	100%	327,157.16	344,375.96	0.00	0.00	2,704,853.75	0.00
2030	332,064.52	0%	100%	332,064.52	349,541.60	0.00	0.00	2,355,312.15	0.00
2031	337,045.49	0%	100%	337,045.49	354,784.73	0.00	0.00	2,000,527.43	0.00
2032	342,101.17	0%	100%	342,101.17	360,106.50	0.00	0.00	1,640,420.93	0.00
2033	347,232.69	0%	100%	347,232.69	365,508.09	0.00	0.00	1,274,912.84	0.00
2034	352,441.18	0%	100%	352,441.18	370,990.72	0.00	0.00	903,922.12	0.00
2035	357,727.80	0%	100%	357,727.80	376,555.58	0.00	0.00	527,366.55	0.00
2036	363,093.71	0%	100%	363,093.71	382,203.91	0.00	0.00	145,162.64	0.00
2037	368,540.12	0%	37%	137,904.50	145,162.64	0.00	0.00	0.00	0.00
2038	374,068.22	0%	0%	0.00	0.00	0.00	0.00	0.00	0.00

Notes:

1 Projected disposal rate tonnages based on historical tonnage received in 2010/2011 and annual increase based on Hillsborough County Planning Commission Population Estimates of 1.5% average annual increases for 2004 - 2025.

2 Project disposal rate for 2011 based on approximately 6 months remaining in 2011 (July 1 - December 31) = 254,000 x 6 months / 12 months = 127,000 tons.

3 Cubic yard conversion from tons based on 1,900 lbs/cy apparent waste density based on typical waste densities calculated using monthly surveys and tonnage reports by the County.

4 Remaining estimated air space based on Pickett's July 5, 2011 aerial topographic survey and permitted final buildout contours.

5 Remaining volumes and site life calculations based on gross remaining air space. Final cover soil for Phases I-VI has been deducted from the available air space. The total remaining air space for Phases I-VI is 7,377,092.19 cubic yards. From the finanical assurance cost estimates, it was estimated that 718,015 cubic yards of final cover soil would be needed for closure of Phases I-VI. Therefore, the total available net remaining air space for waste and daily cover soil is 7,377,092.19 - 718,015 cubic yards = 6,659,077.19 cubic yards. Remaining volumes and site life calculations based on gross remaining air space. Final cover soil for CEA has been deducted from the available air space. The total remaining air space for the CEA (Sections 7-9) is 1,833,729.04 cubic yards. From the finanical assurance cost estimates, it was estimated that 176,056 cubic yards of final cover soil would be needed for closure of the CEA (Sections 7-9). Therefore, the total available net remaining air space for waste and daily cover soil is 1,833,729.04 - 176,056 cubic yards = 1,657,673 cubic yards.

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
SEP 01 2011
SOUTHWEST DISTRICT
TAMPA

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
SEP 01 2011
SOUTHWEST DISTRICT
TAMPA

ATTACHMENT A

TOPOGRAPHIC SURVEY

PICKETT
SURVEYING & PHOTOGRAMMETRY

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.: 11994-10B
TITLE/TYPE OF SURVEY: Topographic & Special Purpose Survey
DATE OF SURVEY: This Map is based on aerial photography flown 07/05/11
DATE OF THIS REPORT: 08/08/11
SUBJECT: S.E. Landfill
CLIENT: Waste Management

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

VERTICAL: Contours may be 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 1.66', as per Florida Minimum Technical Standards. All measurements are in U.S. Survey Feet.

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.

Control Points Used:

Pt#	Easting	Northing	Elevation
1	594444.64	1249416.46	127.42
4	596658.59	1249409.50	126.59
5	598710.90	1249383.77	126.01
6	598999.12	1250855.31	137.37

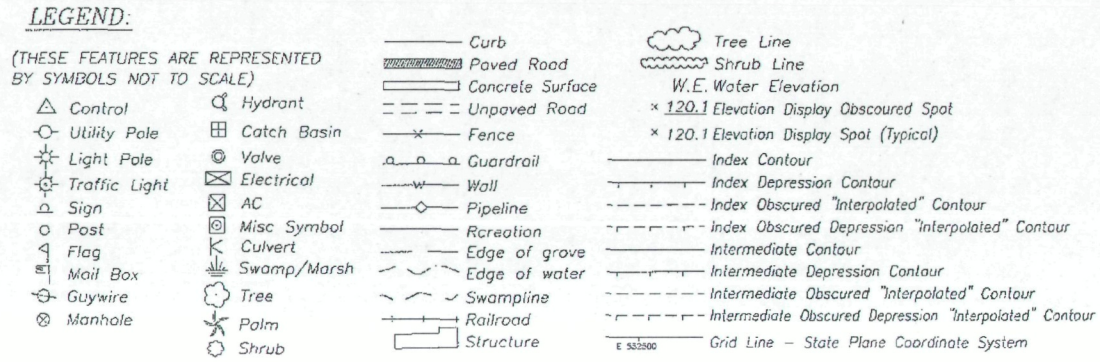
Pickett & Associates, Inc.
475 South First Avenue
Bartow, Florida 33830

Business ~ 863.533.9095
Fax ~ 863.534.1464
email@pickett-inc.com

PICKETT & ASSOCIATES, INC.

7e	597291.71	1253607.39	126.60
9	599697.57	1251577.37	134.55
10	600531.06	1252289.80	148.43
11	595105.45	1254273.93	96.12
15	601089.81	1254397.27	122.83
26	599574.69	1254421.36	117.67

Feature List:



Measurement Methods: In areas where vegetation makes the ground difficult to determine contours are shown dashed and do not meet the above stated accuracy. This map is limited to those features visible on aerial photography. Color aerial photography was acquired at a negative scale of 1:3960, scanned at a 15-micron resolution and mapped using softcopy photogrammetric techniques.

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

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

7/5/11

SURVEY DATE

HDR | ONE COMPANY *Many Solutions*℠

Memo

To:	Jason Timmons		
From:	Braden Johnson	Project:	Hillsborough County – Site Life Calculations
CC:			
Date:	August 23, 2011	Job No:	096-149350-002

Dept. of Environmental Protection
SEP 01 2011
Southwest District

RE: Current Available Lift Volume in Section 7, 8 and 9

Jason here is the available volume in Sections 7, 8 and 9 of the Capacity Expansion Area of Southeast County Landfill as of July 5, 2011. I've compared a surface made from the July 5, 2011 existing topographic survey by Pickett versus the design final contours from sequence 18, drawing 9 of the Sections 7, 8, 9 Fill Sequence plans from Jones Edmunds. The results of the volumes are as follows:

Volume Surface: Volume - Expansion Area Final Design vs 7-5-2011 Topo

Volume Fill: ***1,833,729.039***

Compare Surface: CEA_SEQ-18_FULLBUILD
Base Surface: Existing Topo Expansion Area 7-5-2011

Gross Remaining Volume Per Section:

Volume Surface: Volume - Expansion Area Section 7 vs 7-5-2011 Topo

Volume Fill: ***625,672.790***

Compare Surface: CEA_SEQ-18_FULLBUILD
Base Surface: Existing Topo Expansion Area 7-5-2011

Volume Surface: Volume - Expansion Area Section 8 vs 7-5-2011 Topo

Volume Fill: ***266,066.905***

Compare Surface: CEA_SEQ-18_FULLBUILD
Base Surface: Existing Topo Expansion Area 7-5-2011

Volume Surface: Volume - Expansion Area Section 9 vs 7-5-2011 Topo

Volume Fill: ***940,159.466***

Compare Surface: CEA_SEQ-18_FULLBUILD
Base Surface: Existing Topo Expansion Area 7-5-2011

HDR | ONE COMPANY *Many Solutions*℠

Memo

To: Jason Timmons	
From: Braden Johnson	Project: Hillsborough County – Site Life Calculations
CC:	
Date: August 23, 2011	Job No: 096-149350-002

RE: Current Available LF Volume in Phase I - VI

Jason here is the remaining airspace in Phases I-VI. The Jones Edmunds Lift 23 Final design contours from drawing 14 of the "Phases I-VI Operating Sequence-Phases I-IV Lift 23 (Final Lift)" were compared to the July 5, 2011 semi-annual topographic survey by Pickett. The results of the volumes are as follows:

Volume Surface: Volume - PhI-VI Final Design vs 7-5-2011 Topo

Volume Fill: ***7,377,092.187***

Compare Surface: PHI-VI_Lift 23 Final
Base Surface: Existing Topo Phases 1-6 7-5-2011

Gross Remaining Volume Per Phase:

Volume Surface: Volume - Phase I
Description: Final Design vs 7-5-2011 Phase I Area

Volume Fill: ***1,633,472.968***

Compare Surface: PHI-VI_Lift 23 Final
Base Surface: Existing Topo Phases 1-6 7-5-2011

Volume Surface: Volume - Phase II
Description: Final Design vs 7-5-2011 Phase II Area

Volume Fill: ***1,261,501.517***

Compare Surface: PHI-VI_Lift 23 Final
Base Surface: Existing Topo Phases 1-6 7-5-2011

Volume Surface: Volume - Phase III
Description: Final Design vs 7-5-2011 Phase III Area

Volume Fill: ***1,276,601.402***

Compare Surface: PHI-VI_Lift 23 Final
Base Surface: Existing Topo Phases 1-6 7-5-2011

Volume Surface: Volume - Phase IV
Description: Final Design vs 7-5-2011 Phase IV Area

Volume Fill: ***944,438.068***

Compare Surface: PHI-VI_Lift 23 Final
Base Surface: Existing Topo Phases 1-6 7-5-2011

Volume Surface: Volume - Phase V
Description: Final Design vs 7-5-2011 Phase V Area
Volume Fill: ***239,112.444***

Compare Surface: PHI-VI_Lift 23 Final
Base Surface: Existing Topo Phases 1-6 7-5-2011

Volume Surface: Volume - Phase VI
Description: Final Design vs 7-5-2011 Phase VI Area
Volume Fill: ***239,112.444***

Compare Surface: PHI-VI_Lift 23 Final
Base Surface: Existing Topo Phases 1-6 7-5-2011

5426 Bay Center Drive
Suite 400
Tampa, FL 33609-3444

Phone (813) 282-2300
Fax (813) 282-2430
www.hdrinc.com

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GRAPHIC SCALE

200 0 100 200 400 800

(IN FEET)
1 inch = 200 ft.

Dept. of Environmental Protection
SEP 01 2011
Southwest District

TOPOGRAPHIC SURVEY

SOUTHEAST LANDFILL
LOCATED IN SECTION 28, TOWNSHIP 32 SOUTH, RANGE 23 EAST, HILLSBOROUGH COUNTY, FLORIDA

PREPARED FOR: WASTE MANAGEMENT

PROJECT No.	11994-10B
DRAWING No.	LD-4751
No.	1 OF 1

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.

PICKETT
SURVEYING & PHOTOGRAMMETRY
PICKETT & ASSOCIATES, INC. LICENSED BUSINESS No. LB984
475 SOUTH FIRST AVENUE
BARTOW, FLORIDA 33830
PHONE: (863)-533-8095
FAX: (863)-534-1464

Horiz. Scale: 1" =200'	Edited by: RP	Compiled by: BF	Flight Date: 07/05/11
Contour Interval: 1'			Drawing Name: 11994-10B.DWG

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

No.	DATE	APPROVED	REVISION
O.R.	08/08/11	TJY	ORIGINAL RELEASE

LEGEND:

(THESE FEATURES ARE REPRESENTED BY SYMBOLS NOT TO SCALE)

- CONTROL
- UTILITY POLE
- LIGHT POLE
- TRAFFIC LIGHT
- SIGN
- POST
- FLAG
- MAIL BOX
- GUYWIRE
- MANHOLE
- HYDRANT
- CATCH BASIN
- VALVE
- ELECTRICAL
- AIR CONDITIONER
- MISCELLANEOUS SYMBOL
- CULVERT
- SWAMP/MARSH
- TREE
- PALM
- SHRUB

(THESE FEATURES ARE TO SCALE)

- CURB
- PAVED SURFACE
- CONCRETE SURFACE
- UNPAVED ROAD
- FENCE
- GUARDRAIL
- WALL
- RAILROAD
- STRUCTURE
- TREE LINE
- SHRUB LINE
- PIPELINE
- RECREATION
- EDGE OF GROVE
- EDGE OF WATER
- SWAMPLINE
- OBSCURED CONTOUR
- DEPRESSION CONTOUR

(THESE INFORMATIVE LABELS ARE NOT SCALE DEPENDENT)

- W.E. WATER ELEVATION
- × 120.1 SPOT ELEVATION
- × 120.1 OBSCURED SPOT