

AGENDA

LOUDON COUNTY SOLID WASTE DISPOSAL COMMISSION

January 14, 2014

6:30 p.m.

LOUDON COUNTY COURTHOUSE ANNEX

Loudon, Tennessee

1. Call to Order
2. Approval of Minutes – December 10, 2013
3. Items of Public Concern
4. Brown & Caldwell Update – Site Utilization and Waste Alternatives Workshop
5. Cash Activity Report
5. Operations Report
6. Santek's Response to Major Permit Modification Process
7. Attorney's Report
8. Chairman's Report
9. Other Items of Commission's Consideration
10. Adjourn

MONTHLY CASH REPORT

December OF 2013

CASH RECEIPTS:

Landfill Host Fees	11,320.80
Closure/Post Clo. Security Fees	17,453.70
Interest Received	209.10
Tire Grants	2,179.00
Other: _____	

Total Monthly Revenue: 31,162.60

CASH DISBURSEMENTS:

Commissioner Meeting Pymts.	300.00
Commissioner Travel/Seminar	
Meeting Expense	
Legal Services	22,574.27
Audit/Accounting Services	
Consultants	
Trustee's Commission	287.75
Debt Service/Loudon - Water Lines	
Santek-Tire Grant	
Engineering Services	
Office Supplies	79.32
Building and Contents Insurance	
Other: _____	
Other: <u>Contracted Svc-Mowing</u>	

Total Monthly Expense: 23,241.34

Change in Net Assets: 7,921.26

BEGINNING CASH BALANCE: \$ 2,709,390.66

CLOSURE RESERVES:	\$ 1,127,990.15
Total Closure Reserves and General Account	\$ 2,717,311.92
GENERAL ACCOUNT:	\$ 1,589,321.77

ENDING CASH BALANCE: \$ 2,717,311.92

CHANGE IN CASH POSITION \$ 7,921.26

QUESTIONNAIRE

The Loudon County Solid Waste Disposal Commission (SWDC) is the active governmental body charged with ownership and operation of the Matlock Bend Landfill in Loudon County, Tennessee. The landfill opened in approximately 1985 and is an active Class I municipal solid waste landfill. The landfill is operated under contract with Santek Environmental (Santek) of Cleveland, Tennessee.

The SWDC has initiated a process to engage Loudon County, Lenoir City, the City of Loudon, and other members of the business community that utilize or could utilize Matlock Bend Landfill for disposal or those that might be willing to partner with the SWDC for revenue generating projects. The purpose of this questionnaire is to generate interests, ideas, and feedback that could lead to potential revenue sharing between the SWDC and a third party. Examples of potential revenue generating opportunities include but are not limited to:

- Use of SWDC property for development projects or activities otherwise mutually beneficial to stakeholders. Such projects may leverage the existing infrastructure and assets of the Matlock Bend Landfill and its adjacent properties.
- Development of an Eco-Park, which is an idea that could transform the existing landfill into a more long term sustainable solid waste management facility.
- Potential projects could include evaluating waste conversion technologies such as gassification, research and development related to solid waste or energy such as biofuels, composting, biosolids processing, asphalt or concrete batch plant, tire and rubber fuel plant, plastic pellet fuel plant, aenarobic digestion of organic waste, biofuel plant, etc.
- Recycling opportunities include municipal solid waste,ewaste, construction and demolition waste, lumber and pallet recycling, storm debris waste,
- Utilization including landfill gas (LFG) of LFG could include direct use, LFG to energy (electricity, pipeline quality gas, LFG to compress natural gas fuel station,
- Partnering with nearby business and community stakeholders, nearby research facilities, and local government entities for the broader benefit of the community.
- Converting portions of the closed landfill into a solar panel farm for the creation of electricity

This questionnaire is not intended to limit or bias responses toward any specific example or idea mentioned above. It is intended to be circulated by the SWDC to local industries, commercial businesses, developers, civic groups, and neighboring municipalities and to help develop a dialogue with stakeholders.

The feedback from the questionnaire will be utilized during a future Workshop session, which will serve as a framework of concepts for further consideration by the SWDC and to guide further discussion and opportunity for information exchange between SWDC commissioners and community-based stakeholders.

Spaces are provided for your responses; however, please provide additional pages if needed.

1) Please identify yourself/or business and share relevant information regarding your own existing waste materials, infrastructure, sustainability initiatives, energy types, and consumption.

2) Please share your ideas around improving community recycling, use of available landfill gas as energy, use of available land resources, beneficial re-use of existing waste streams, and/or use of available infrastructure and adjacent properties associated with the Matlock Bend Landfill.

3) Please indicate potential interest or needs for developing a dialogue for partnering opportunities.

4) Please indicate ideas for alternative wastestream management in your own business or community.

5) Provide input regarding interest or comments associated with use of SWDC property (including any existing infrastructure and assets of the Matlock Bend Landfill and its adjacent properties) for development projects or activities otherwise mutually beneficial to stakeholders.

6) Provide input regarding specific interest in any of the following: waste conversion technologies, research and development related to solid waste or energy, composting, biosolids processing, asphalt or concrete batch plant, tire and rubber fuel plant, plastic pellet fuel plant, anaerobic digestion of organic waste, biofuel plant, etc.

7) Provide qualitative information on Waste Stream Analysis (e.g., does program exist, is it current, can it be shared, etc):

- a. General public _____
- b. Institutional (e.g., schools, medical centers) _____
- c. Commercial _____
- d. Manufacturing/heavy industry _____

8) Provide relevant ideas and interest in expanding waste diversion concepts (e.g., staging/sorting, development of an EcoPark, etc.).

9) Provide relevant information regarding potential needs related to financial and marketing related to waste

10) Provide relevant information regarding support for particular innovative approaches and/or uses of new technologies.

11) Please provide additional information you feel the SWDC should consider.

**Monthly Operations Report
Matlock Bend Landfill
January 14, 2014
Presented by:
Santek Environmental, Inc.**



650 25th Street, N.W., Suite 100
Cleveland, Tennessee 37311
(423) 303-7101

Email: mail@santekenviro.com
Internet: www.santekenviro.com

- I. OPERATIONS**
 - A. Tonnage Report
 - B. Customer Report
 - C. Inspection
 - D. Materials Classification Report
 - E. Tire Report

- II. REMAINING AIRSPACE UTILIZATION SCHEDULE**

- III. HOST & SECURITY FEES**

LANDFILL TONNAGE VOLUME
MONTH ENDING -
DECEMBER 2013

MATLOCK BEND LANDFILL

MONTH	2012		2013		2012 TO 2013	
	2012	2013	2012	2013	2012	TO 2013
JANUARY	21228.22	21183.26	-44.96			
FEBRUARY	19725.24	18784.45	-940.79			
MARCH	21278.30	21164.32	-113.98			
APRIL	18513.04	23808.40	5295.36			
MAY	21187.33	24577.63	3390.30			
JUNE	19009.85	21643.84	2633.99			
JULY	19732.59	21471.10	1738.51			
AUGUST	21348.07	21439.01	90.94			
SEPTEMBER	19594.32	19616.80	22.48			
OCTOBER	19515.01	21230.51	1715.50			
NOVEMBER	17925.25	17453.70	-471.55			
DECEMBER	18643.32	19296.85	653.53			
TOTAL	237700.54	251669.87	13,969.33			

LOUDON COUNTY

MONTH	2012		2013		2012 TO 2013	
	2012	2013	2012	2013	2012	TO 2013
JANUARY	455.80	453.60	-2.20			
FEBRUARY	434.11	384.82	-49.29			
MARCH	500.25	436.97	-63.28			
APRIL	444.00	479.58	35.58			
MAY	476.95	474.49	-2.46			
JUNE	463.27	452.76	-10.51			
JULY	496.37	513.37	17.00			
AUGUST	481.72	457.80	-23.92			
SEPTEMBER	409.33	430.59	21.26			
OCTOBER	428.06	438.17	10.11			
NOVEMBER	421.04	377.62	-43.42			
DECEMBER	477.12	469.63	-7.49			
TOTAL	5488.02	5369.40	-118.62			

LENOIR CITY

MONTH	2012		2013		2012 TO 2013	
	2012	2013	2012	2013	2012	TO 2013
JANUARY	284.88	297.14	12.26			
FEBRUARY	283.75	261.57	-22.18			
MARCH	365.85	270.08	-95.77			
APRIL	346.16	355.37	9.21			
MAY	340.93	332.94	-7.99			
JUNE	320.28	295.24	-25.04			
JULY	354.07	369.49	15.42			
AUGUST	339.22	344.97	5.75			
SEPTEMBER	315.80	304.62	-11.18			
OCTOBER	309.40	312.80	3.40			
NOVEMBER	265.16	247.76	-17.40			
DECEMBER	262.47	313.25	50.78			
TOTAL	3787.97	3705.23	(82.74)			

DAILY AVG FOR ANY
 RUNNING 30 DAY PERIOD **643.23**

CITY OF LOUDON

MONTH	2012		2013		2012 TO 2013	
	2012	2013	2012	2013	2012	TO 2013
JANUARY	360.21	361.29	1.08			
FEBRUARY	332.91	303.30	-29.61			
MARCH	415.05	348.14	-66.91			
APRIL	370.06	427.14	57.08			
MAY	385.40	429.42	44.02			
JUNE	364.68	367.47	2.79			
JULY	404.44	427.04	22.60			
AUGUST	425.57	407.20	-18.37			
SEPTEMBER	335.77	362.06	26.29			
OCTOBER	360.39	363.07	2.68			
NOVEMBER	352.97	324.58	-28.39			
DECEMBER	339.90	375.95	36.05			
TOTAL	4447.35	4496.66	49.31			

WASTE SERVICES OF TN

MONTH	2012		2013		2012 TO 2013	
	2012	2013	2012	2013	2012	TO 2013
JANUARY	3697.81	4596.48	898.67			
FEBRUARY	3731.86	5069.18	1337.32			
MARCH	3915.26	4998.69	1083.43			
APRIL	4006.32	5925.28	1918.96			
MAY	4785.96	5132.10	346.14			
JUNE	4263.01	5270.28	1007.27			
JULY	5067.34	5162.47	95.13			
AUGUST	5069.62	4710.10	-359.52			
SEPTEMBER	4521.29	4812.63	291.34			
OCTOBER	4816.13	5182.25	366.12			
NOVEMBER	3774.03	4185.97	411.94			
DECEMBER	4216.04	4912.65	696.61			
TOTAL	51864.67	59958.08	8,093.41			

WASTE CONNECTIONS

MONTH	2012		2013		2012 TO 2013	
	2012	2013	2012	2013	2012	TO 2013
JANUARY	0.00	0.00	0.00			
FEBRUARY	30.22	0.00	-30.22			
MARCH	0.00	0.00	0.00			
APRIL	0.00	7.25	7.25			
MAY	0.00	10.95	10.95			
JUNE	0.00	8.02	8.02			
JULY	0.00	5.92	5.92			
AUGUST	5.40	0.00	-5.40			
SEPTEMBER	0.00	0.00	0.00			
OCTOBER	6.60	5.06	-1.54			
NOVEMBER	0.00	16.05	16.05			
DECEMBER	0.00	7.60	7.60			
TOTAL	42.22	60.85	18.63			

LANDFILL TONNAGE VOLUME
MONTH ENDING -
DECEMBER 2013

KIMBERLY CLARK - PAPER WASTE

MONTH	2012		2013		2012 TO 2013	
JANUARY	7975.38	6856.77	-1118.61			
FEBRUARY	7790.53	5851.74	-1938.79			
MARCH	7790.86	7687.65	-103.21			
APRIL	6201.17	7018.70	817.53			
MAY	7497.63	8293.00	795.37			
JUNE	7543.41	7282.70	-260.71			
JULY	7927.52	8313.08	385.56			
AUGUST	8342.83	8570.34	227.51			
SEPTEMBER	7891.37	7741.02	-150.35			
OCTOBER	6685.12	7915.96	1230.84			
NOVEMBER	6818.07	7665.86	847.79			
DECEMBER	7326.16	7948.40	622.24			
TOTAL	89790.05	91145.22	1,355.17			

TATE & LYLE - SLUDGE

MONTH	2012		2013		2012 TO 2013	
JANUARY	1264.44	2186.05	921.61			
FEBRUARY	1593.58	2377.30	783.72			
MARCH	1693.49	2382.90	689.41			
APRIL	1629.64	2766.65	1137.01			
MAY	1527.87	1879.97	352.10			
JUNE	1447.61	2381.90	934.29			
JULY	2192.48	1999.93	-192.55			
AUGUST	2142.03	1734.07	-407.96			
SEPTEMBER	1856.06	2159.64	303.58			
OCTOBER	2099.31	2048.70	-50.61			
NOVEMBER	1630.86	2048.01	417.15			
DECEMBER	1685.08	2318.42	633.34			
TOTAL	20762.45	26283.54	5,521.09			

PSC METALS INC

MONTH	2012		2013		2012 TO 2013	
JANUARY	5439.68	5100.02	-339.66			
FEBRUARY	3937.54	3992.14	54.60			
MARCH	4655.10	3842.74	-812.36			
APRIL	3902.33	5550.21	1647.88			
MAY	4230.61	5413.60	1182.99			
JUNE	2766.11	4102.91	1336.80			
JULY	2029.92	2640.75	610.83			
AUGUST	2612.79	2757.78	144.99			
SEPTEMBER	2619.50	2447.58	-171.92			
OCTOBER	3089.46	2889.73	-199.73			
NOVEMBER	2748.18	1287.67	-1460.51			
DECEMBER	2616.39	1561.54	-1054.85			
TOTAL	40647.61	41586.67	939.06			

TATE & LYLE - ASH

MONTH	2012		2013		2012 TO 2013	
JANUARY	958.79	771.87	-186.92			
FEBRUARY	470.78	884.91	414.13			
MARCH	633.01	943.56	310.55			
APRIL	894.70	1235.12	340.42			
MAY	1183.70	1205.39	21.69			
JUNE	1219.60	1166.92	-52.68			
JULY	1090.55	1291.32	200.77			
AUGUST	1217.54	1180.93	-36.61			
SEPTEMBER	1113.40	1080.97	-32.43			
OCTOBER	1109.09	838.34	-270.75			
NOVEMBER	639.06	559.14	-79.92			
DECEMBER	983.28	768.28	-215.00			
TOTAL	11513.50	11926.75	413.25			



**TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF SOLID WASTE MANAGEMENT
SOLID WASTE DISPOSAL FACILITY EVALUATION**

NAME OF SITE <i>TRATEOCK Bend LOUDON Landfill</i>		REGISTRATION NUMBER <i>SNL 53-0203</i>		DATE <i>12-18-13</i>	
LOCATION (physical) <i>Highway 12 LOUDON, TN</i>			PURPOSE <input checked="" type="checkbox"/> Complete <input type="checkbox"/> Follow-up <input type="checkbox"/> Complaint <input type="checkbox"/> Other		
OWNER/OPERATOR <i>100500 / Santeck Levi Hudson</i>			TYPE OF FACILITY <input checked="" type="checkbox"/> CLASS I <input type="checkbox"/> CLASS II <input type="checkbox"/> CLASS III <input type="checkbox"/> CLASS IV		
		V1	V2		
Inadequate vector control	8010	___	___	Leachate improperly managed	8330
Access not limited to operating hours	8020	___	___	Inadequate leachate collection system	8340
Inadequate artificial or natural barrier	8030	___	___	Leachate observed at the site	8350
Inadequate information signs	8040	___	___	Leachate entering runoff	8360
Unsatisfactory access road(s)/parking area(s)	8050	___	___	Leachate entering a water course	8370
Certified personnel not present during operating hours	8060	___	___	Inadequate gas migration control system	8380
Unapproved salvaging of waste	8070	___	___	Inadequate maintenance of gas migration control system	8390
Evidence of open burning	8080	___	___	Potential for explosions or uncontrolled fires	8420
Inadequate fire protection	8090	___	___	Waste not confined to a manageable area	8430
Unsatisfactory litter control	8110	___	___	Improper spreading of waste	8440
Inadequate employee facilities	8120	___	___	Improper compacting of waste	8450
No communication devices	8130	___	___	Unsatisfactory initial cover	8460
Inadequate operating equipment	8140	___	___	Unsatisfactory intermediate cover	8470
Unavailability of backup equipment	8150	___	___	Unsatisfactory final cover	8480
Unavailability of cover material	8160	___	___	Excessive pooling of water	8490
Inadequate maintenance of runoff/runoff system(s)	8170	___	___	Unsatisfactory stabilization of cover	8510
Inadequate erosion control	8180	___	___	Dumping of waste into water	8520
Inadequate dust control	8190	___	___	Unsatisfactory records or reports	8530
Unauthorized waste accepted	8210	___	___	Groundwater monitoring system improperly maintained	8540
Unapproved special waste accepted	8220	___	___	Operation does not correspond with engineering plans	8570
Tires improperly handled	8230	___	___	Operation does not correspond with permit condition(s)	8580
Medical waste improperly handled	8240	___	___	Permit, plans, operating manual not available	8590
Dead animals improperly handled	8250	___	___	No operating scales	8610
Washout of solid waste	8270	___	___		
No permanent benchmark	8280	___	___		
Inadequate random inspection program	8290	___	___		
Mishandling of special waste	8300	___	___		
Buffer zone standard violated	8310	___	___		
Inadequate maintenance of leachate management system	8320	___	___		
COMMENTS: <i>No violations. Send survey info in after 2 rounds.</i>					
PERSON INTERVIEWED (Signature) <i>[Signature]</i>			INSPECTED BY (Signature) <i>[Signature]</i>		
TITLE <i>S. To Manager</i>			TITLE <i>EPSY</i>		
TIME OF DAY <i>12:30pm</i>	WEATHER CONDITIONS <i>40° dry</i>		COMPLIANCE DATE <i>N/A</i>		

Distribution: Facility - White Field Office - Canary Central Office - XC



**TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF SOLID WASTE MANAGEMENT
SOLID WASTE DISPOSAL FACILITY EVALUATION**

NAME OF SITE <i>MATlock Bend Landfill</i>		REGISTRATION NUMBER <i>SNL 53-0203</i>	DATE <i>1-10-14</i>
LOCATION (physical) <i>Hwy 72 N of I-75</i>		PURPOSE <input checked="" type="checkbox"/> Complete () Follow-up () Complaint () Other	
OWNER/OPERATOR <i>CSWB / Sank - Lev. Higdon</i>		TYPE OF FACILITY <input checked="" type="checkbox"/> CLASS I () CLASS II () CLASS III () CLASS IV	
	V1	V2	
Inadequate vector control	8010	___	Leachate improperly managed
Access not limited to operating hours	8020	___	8330
Inadequate artificial or natural barrier	8030	___	Inadequate leachate collection system
Inadequate information signs	8040	___	8340
Unsatisfactory access road(s)/parking area(s)	8050	___	Leachate observed at the site
Certified personnel not present during operating hours	8060	___	8350
Unapproved salvaging of waste	8070	___	Leachate entering runoff
Evidence of open burning	8080	___	8360
Inadequate fire protection	8090	___	Leachate entering a water course
Unsatisfactory litter control	8110	___	8370
Inadequate employee facilities	8120	___	Inadequate gas migration control system
No communication devices	8130	___	8380
Inadequate operating equipment	8140	___	Inadequate maintenance of gas migration control system
Unavailability of backup equipment	8150	___	8390
Unavailability of cover material	8160	___	Potential for explosions or uncontrolled fires
Inadequate maintenance of runoff/runoff system(s)	8170	___	8420
Inadequate erosion control	8180	___	Waste not confined to a manageable area
Inadequate dust control	8190	___	8430
Unauthorized waste accepted	8210	___	Improper spreading of waste
Unapproved special waste accepted	8220	___	8440
Tires improperly handled	8230	___	Improper compacting of waste
Medical waste improperly handled	8240	___	8450
Dead animals improperly handled	8250	___	Unsatisfactory initial cover
Washout of solid waste	8270	___	8460
No permanent benchmark	8280	___	Unsatisfactory intermediate cover
Inadequate random inspection program	8290	___	8470
Mishandling of special waste	8300	___	Unsatisfactory final cover
Buffer zone standard violated	8310	___	8480
Inadequate maintenance of leachate management system	8320	___	Excessive pooling of water
			8490
			Unsatisfactory stabilization of cover
			8510
			Dumping of waste into water
			8520
			Unsatisfactory records or reports
			8530
			Groundwater monitoring system improperly maintained
			8540
			Operation does not correspond with engineering plans
			8570
			Operation does not correspond with permit condition(s)
			8580
			Permit, plans, operating manual not available
			8590
			No operating scales
			8610
COMMENTS: <i>No outbreaks, site looks OK in our west west No directions or tests identified.</i>			
PERSON INTERVIEWED (Signature) <i>[Signature]</i>		INSPECTED BY (Signature) <i>[Signature]</i>	
TITLE <i>Site Manager</i>		TITLE <i>EPS3</i>	
TIME OF DAY <i>2pm</i>	WEATHER CONDITIONS <i>40°F Clouds</i>	COMPLIANCE DATE <i>N/A</i>	

Distribution: Facility - White Field Office - Canary Central Office - XC

Materials Classification Report
Matlock Bend Landfill
Monthly Tonnage Summary December 2013

Material	Tonnage	2011 Sludge %		2012 Sludge %	
MSW		January	xx	January	6%
		February	xx	February	8%
MSW	<u>6,383</u>	March	16%	March	8%
Special Waste		April	12%	April	9%
		May	13%	May	8%
Other	9,511	June	12%	June	8%
Ash	933	July	11%	July	11%
Sludge	<u>2,470</u>	August	8%	August	10%
Total Special Waste	<u>12,914</u>	September	6%	September	10%
		October	6%	October	12%
		November	6%	November	10%
		December	7%	December	10%
Total MSW & SW	19,297				
Tires	25				
Total Material	<u>19,321</u>				
% MSW	<u>33%</u>				
% Special Waste	<u>67%</u>				
% Sludge	<u>13%</u>				

2013 Sludge %		2014 Sludge %	
January	11%	January	xx
February	13%	February	xx
March	12%	March	xx
April	12%	April	xx
May	10%	May	xx
June	13%	June	xx
July	11%	July	xx
August	9%	August	xx
September	12%	September	xx
October	10%	October	xx
November	12%	November	xx
December	13%	December	xx

**2013-2014 Matlock Bend
Landfill Tire Report**

Month	Tonnage
Jul-13	21.05
Aug-13	15.02
Sep-13	39.75
Oct-13	57.56
Nov-13	16.91
Dec-13	21.67
Jan-14	
Feb-14	
Mar-14	
Apr-14	
May-14	
Jun-14	
Total (tons)	171.96

Matlock Bend Landfill - Module H 2014 Airspace Projection / Construction Schedule

DATE	REMAINING AIRSPACE ¹ (CY)	MONTHLY TONNAGE	ACTUAL / PROJECTED ²	UTILIZATION FACTOR	MONTHLY VOLUME CONSUMED (CY)	ENDING MONTHLY REMAINING AIRSPACE (CY)
		19,469		1.07		
Sept. 20, 2013	576,461	-	-	-	-	-
Sept. 21-30, 2013	-	7,424	A	1.07	7,944	568,517
October	-	21,656	A	1.07	23,171	545,346
November	-	17,454	A	1.07	18,675	526,670
December	-	19,297	A	1.07	20,647	506,023
January '14	-	19,469	P	1.07	20,831	485,191
February	-	19,469	P	1.07	20,831	464,360
March	-	19,469	P	1.07	20,831	443,529
April	-	19,469	P	1.07	20,831	422,697
May	-	19,469	P	1.07	20,831	401,866
June	-	19,469	P	1.07	20,831	381,034
July	-	19,469	P	1.07	20,831	360,203
August	-	19,469	P	1.07	20,831	339,372
September	-	19,469	P	1.07	20,831	318,540
October	-	19,469	P	1.07	20,831	297,709
November	-	19,469	P	1.07	20,831	276,878
December	-	19,469	P	1.07	20,831	256,046

¹ = Remaining airspace based on Sept. 20, 2013 aerial survey.

Full Date

January-2016

² = Projected tonnages are based on a 3 month average per Matt Dillard on 6-2-09.

³ = Utilization rate based on the annual utilization rate per October 27, 2008 construction meeting (Avg. Utilization = 1.32 cy/ton)

Tonnage for Past 3 Months

October	21,656
November	17,454
December	19,297
Average	19,469

cc: Matt
Rob
Cheryl
Ron
Chris
Levi
Jason



650 25th Street NW, Ste 100
Cleveland, TN 37311

Phone: (423) 303-7101
Toll Free: (800) 467-9160
www.santekenviro.com

January 13, 2014

Loudon County Solid Waste Disposal Commission
100 River Road
P.O. Box 351
Loudon, TN 37774

Dear Steve:

Pursuant to Section 10.6 and 10.7 of the Sanitary Landfill Operation Agreement between Loudon and Santek as of July 1, 2007, Santek agreed to pay the Commission a host fee and security fee as defined in the Agreement. The following recap reflects the calculation for the period December 1, 2013 to December 31, 2013:

Host Fees (Greater of below) –	
Total Tip Fees Billed	\$314,219.96
Host Fee Percentage	<u>4.00%</u>
	\$ 12,568.80
Minimum Fee	<u>\$ 10,652.00</u>
Security Fees (Greater of below) –	
Total Tonnage Received	19,296.85
Rate per ton	<u>\$ 1.00</u>
Total	\$ 19,296.85
Total Tip Fees Billed	\$314,219.96
Security Fee Percentage	<u>5.00%</u>
	<u>\$ 15,711.00</u>

Our checks in payment of the above fees have been remitted to the above address for the Commission. Should you have any questions or need additional information, please let me know.

Sincerely,

A handwritten signature in cursive script that reads "Andrew Kandy".

Andrew Kandy
Regional Controller

**CHRONOLOGICAL TIMELINE OF MAJOR PERMIT MODIFICATION
MATLOCK BEND LANDFILL**

- July 1, 2007 - LCSWDC and Santek enter into a landfill management agreement to provide the Commission with 22 years of airspace. The agreement necessitates a major modification of the landfill's permit to expand the facility's footprint in order to provide additional airspace.
- August 20, 2009 - Santek submits the major permit modification to the Tennessee Department of Environment and Conservation (TDEC). Santek sends a copy to the Commission.
- September 29, 2009 - TDEC notifies the Commission it has performed a completeness review of the permit application and sends a copy to Santek.
- February 9, 2010 - Brown & Caldwell submit a draft technical memorandum to the Commission regarding the major permit modification and the cost of closure/post-closure at the conclusion of the current landfill management agreement. The estimate ranges from \$6.5 million to \$14.5 million.
- November 3, 2010 Landfill's slope failure puts the permit process on hold. Consent order issued to resolve failure.
- December 2, 2011 TDEC officially closes the consent order and the major permit modification process resumes.
- November 12, 2013 - LCSWDC enters into Executive Session to discuss the major permit modification.
- December 12, 2013 - LCSWDC expresses concerns to Santek about the major permit modification's permitted footprint, airspace, final elevation, closure/post-closure process. The Commission asks Santek to consider changing the major permit modification to address its concerns.
- December 17, 2013 – LCSWDC receives a letter from TDEC regarding several comments and requests for additional information about the major permit modification.

August 20, 2009



SANTEK
ENVIRONMENTAL

650 25th Street, N.W., Suite 100
Cleveland, Tennessee 37311
(423) 476-9160
Toll Free: (800) 467-9160
Fax: (423) 479-1952

Email: mail@santekenviro.com
Internet: www.santekenviro.com

Ms. Paula Plont
Tennessee Department of Environment & Conservation
Division of Solid Waste Management
3711 Middlebrook Pike
Knoxville, TN 37921-5602

Re: Matlock Bend Class I Landfill Expansion
Part 2B Permit Application

Dear Ms. Plont:

Please find attached two copies of the Part 2B permit application for the Matlock Bend Class I Landfill Expansion. Santek Environmental, Inc. is submitting two sets of design drawings and two copies of the notebook which includes calculations, the operation plan and the closure/post-closure plan.

If you have any questions during your review or require additional information, please give me a call at (423) 476-9160.

Sincerely,

Ron E. Vail, P.E.
Engineering Department Manager

RV/sa

Enclosures

cc: Steve Field, Chairman, LCSWDC
Larry Cook, TDEC
Cheryl Dunson, Executive V.P. of Marketing, Santek
Matt Dillard, Executive V.P. of Operations, Santek
Robert Burnette, Executive V.P. of Engineering, Santek

*Landfill Solutions Under
Local Government's Authority.*



STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
KNOXVILLE ENVIRONMENTAL FIELD OFFICE
3711 MIDDLEBROOK PIKE

PHONE (865) 594-6035 KNOXVILLE, TENNESSEE 37921-6538
STATEWIDE 1-888-891-8332 FAX (865) 594-6105

September 28, 2009

Chairman Steve Fields
Loudon County Solid Waste Disposal Commission
100 River Road
Loudon, Tennessee 37774

RE: Review of Disposal Facility Application, Class I Landfill - Complete
Loudon County Matlock Bend SNL 53-0203
21712 Highway 72 North
Loudon, Tennessee

Dear Mr. Fields:

In accordance with the Regulations Governing solid Waste Processing and Disposal in Tennessee, Rule Chapter 1200-1-7, the Part II Permit Application for the above facility has been reviewed for completeness. Our review has determined the submitted plans are complete in that each item required under subparagraph 1200-1-7-.04(9)(b) of the regulations has been addressed.

The Part II permit application completeness review does not constitute approval of any part of the application and further review will be conducted on the components submitted which may result in a request for additional information if necessary to clarify, modify, or supplement previously submitted material. The Division's detailed technical review will begin and with input from the Nashville Central Office, the Knoxville Field Office will prepare correspondence outlining any comments or requesting additional detail.

If you have any questions concerning the review, feel free to contact me at (865)594-5474.

Yours truly,

Paula Plont
Environmental Protection Specialist
Division of Solid Waste Management
Knoxville Field Office

Larry Cook
Manager
Division of Solid Waste Management
Knoxville Field Office

cc: Nashville Office - DSWM

200-1014.1



Technical Memorandum

501 Great Circle Road, Suite 150
Nashville, TN 37228
Tel: 615-255-2288
Fax: 615-256-8332

Prepared for: Loudon County Solid Waste Disposal Commission
Project Title: Loudon County Matlock Bend LF
Project No: 138160

Technical Memorandum No. 1

Subject: Matlock Bend Landfill, Cost Estimate Representing Closure and Post Closure Care Liabilities
Beginning Year 2028 and Ending 2058
Date: February 9, 2010
To: Chairman Steve Field, Loudon County Solid Waste Disposal Commission
From: Brown and Caldwell

DRAFT

Prepared by: _____
Chris Ward, P.E.

Reviewed by: _____
Steve Batiste, P.E.

Limitations:
This is a draft memorandum and is not intended to be a final representation of the work done or recommendations made by Brown and Caldwell. It should not be relied upon; consult the final report.
This document was prepared solely for Loudon County in accordance with professional standards at the time the services were performed and in accordance with the contract between Loudon County and Brown and Caldwell dated January 16, 2010. This document is governed by the specific scope of work authorized by Loudon County; it is not intended to be relied upon by any other party except for regulatory authorities contemplated by the scope of work. We have relied on information or instructions provided by Loudon County and other parties and, unless otherwise expressly indicated, have made no independent investigation as to the validity, completeness, or accuracy of such information.

1. INTRODUCTION

Brown and Caldwell has prepared this closure/post-closure cost estimate in accordance with our approved scope of work dated January 16, 2010. Our scope of work is to provide the LCSWDC with a cost estimate for what it may take to accomplish closure and post closure if the landfill were to cease operations at the conclusion of the current contract with the landfill operator (i.e., Santeck Environmental) or approximately year 2028. Theoretically, a minimum of 2 years of airspace will remain, the landfill would be filled to capacity over those next couple of years, and closure activities would commence. Therefore, the cost estimate provided in Table 1 reflects the amount of money that would be needed starting at year 2028 and continuing for approximately 30 years or approximately 2058. Timeframes used may be off slightly but that is not expected to affect the cost estimate.

Closure and Post-Closure requirements are outlined in the rules of the Tennessee Department of Environment and Conservation (TDEC), Division of Solid Waste Management, Chapter 1200-1-7-.04 Specific Requirements for Class I Landfills. Applicable definitions are provided below:

"Closure" means the taking of those actions at the termination of a disposal operation which are necessary to finally close the disposal facility or disposal facility parcel.

"Post-closure care" refers to the taking of those actions after closure of a disposal facility or a disposal facility parcel which are necessary to meet the post-closure care requirements of Chapter 1200-1-7-.04(8).

"Post-closure care period" means the period of time following closure of the landfill or landfill parcel during which the operator must perform post-closure care. For Class I disposal facilities, post-closure care must continue for 30 years after the date of final completion of closure of the disposal facility or facility parcel unless a shorter period is established in the approved closure/post-closure care plan.

Matlock Bend Landfill is also required to comply with rules pertaining to financial assurance per Chapter 1200-1-7-.03 Requirements for Financial Assurance. The documents prepared by Santeck Environmental were reviewed as part of this effort. The most recent Financial Assurance documents were those prepared by Santeck Environmental as part of the August 2009 permit application. Applicable definitions are provided below:

"Financial assurance" refers to a financial arrangement between the operator and the state which guarantees the availability of funds which the Commissioner may use to close and provide post-closure care to a landfill if the operator fails to properly execute his responsibilities under the Act, to include the requirements of these rules and the terms of his permit.

Closure Requirements: The following requirements apply to active portions of the Facility (this is an abbreviated list – please refer to the referenced regulations for a complete list):

- complete closure activities including grading and establishing vegetative cover in the shortest practicable time, not to exceed 180 days, after any fill areas or any portion of the fill areas have achieved final grade, unless the Commissioner allows otherwise in the permit (Note: Matlock Bend Landfill requested that final closure not begin until the landfill was filled to final elevations or roughly year 2028; this means that closure costs will occur all at once at the end of the landfill's life instead of periodically while the landfill is active))

BROWN AND CALDWELL

- depth of compacted final cover material (e.g., soil) shall be at least 36 inches and shall be placed on the disposal facility in the shortest practicable time, not to exceed 90 days, after achieving final grade of any fill area; the top twelve inches of this cover material shall be soil which will support the growth of suitable vegetation (e.g., topsoil); this is consistent with the Matlock Bend Landfill Closure Plan; however, it is unknown if this material is available on the site or if it will have to be obtained from an offsite source (Note: if the soil is not available on site, this will significantly affect the cost estimate).
- The final surface of the disposal facility or disposal facility parcel shall be graded and/or provided with drainage facilities in a manner that controls run-on and run-off, minimizes erosion of the cover material, provides for stormwater controls, and apply seeding, mulching, and any necessary fertilization to stabilize cover as soon as practicable after final grading

Post-Closure Care Period: During the post-closure care period, the operator must, at a minimum, perform the following activities on closed portions of his facility:

- Maintain the approved final contours and drainage system
- Ensure that a healthy vegetative cover is established and maintained
- Maintain the drainage facilities, sediment ponds, and other erosion/sedimentation control measures, at least until the vegetative cover is established sufficiently enough to render such maintenance unnecessary
- Maintain and monitor the leachate collection, removal, and treatment system (in this case LC SWDC discharges its leachate to the local POTW)
- Maintain and monitor the gas collection and control system;
- Maintain and monitor the ground and/or surface water monitoring system.
- Following completion of the post closure care period, file a certification verifying that postclosure has been completed in accordance with the post-closure plan.
- Establish and/or complete a system for collecting and venting or otherwise controlling the vertical and horizontal escape of gases generated in the disposal facility

Additional cost assumptions:

As requested in our scope of work, our efforts did not include a detailed review or verification of the Financial Assurance documentation included with the existing permit or expansion permit application submitted in August 2009. However, Brown and Caldwell did make some observations of the expansion permit application financial assurance cost estimate and took those into consideration in the estimate provided in Table 1. For example, if a typical line item was missing, a unit cost seemed low, and/or a related assumption was questionable, BC addressed this in our estimate. One difference to note is that unit costs included by Santek were based on "true" unit costs; however, unit costs assumed by Brown and Caldwell were based on Means Heavy Construction Costs Guidelines. Potential revenue and/or costs associated with the anticipated LFGTE (landfill gas to energy) facility are not included. No contingencies, engineering, or construction quality assurance costs were included with the Santek estimate.

Groundwater monitoring costs are limited to detection monitoring only; assessment monitoring is required whenever a statistically significant increase over background has been detected; costs for corrective and/or remedial actions are not included in this estimate.

Current Year Inflation Factors Utilized:

1.020	for estimates due between January 1 and March 1, 2010
1.020	for estimates due between July 1 and September 1, 2009

Source: U.S. Department of Commerce Bureau of Economic Analysis

Recent Inflation Factors*:

- 2000 Cost Estimate x 1.020 = 2001 Cost Estimate
- 2001 Cost Estimate x 1.020 = 2002 Cost Estimate
- 2002 Cost Estimate x 1.010 = 2003 Cost Estimate
- 2003 Cost Estimate x 1.015 = 2004 Cost Estimate
- 2004 Cost Estimate x 1.020 = 2005 Cost Estimate
- 2005 Cost Estimate x 1.030 = 2006 Cost Estimate
- 2006 Cost Estimate x 1.030 = 2007 Cost Estimate
- 2007 Cost Estimate x 1.025 = 2008 Cost Estimate
- 2008 Cost Estimate x 1.020 = 2009 Cost Estimate

2% vs 3%

* - The data necessary to calculate the inflation factor is released by the U.S. Department of Commerce in April. Therefore, it is appropriate to use the previous year's factor when inflation adjusting cost estimates due between January 1 and March 1.

DRAFT

Table 1: Cost Estimate Summary

	Closure Costs	Post-Closure Costs \$	Total Costs \$
Current Estimate (August 2009)	4,034,064	1,353,592	5,387,656
BC (low estimate)	4,815,240	1,707,009	6,522,249
BC (high estimate)	10,635,993	3,963,560	14,598,553

off-site soil? soil imbalance?

① \$1.50/cy 5% vs \$2.50/cy on site soil BC

② \$18.00/cy top soil off site
\$12.00/cy cones soil off site

③ Also lacks line item for design construction (permit docs)
CGA - \$400k
46 monitoring
175,000 cy of soil to close

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State of Tennessee
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
KNOXVILLE ENVIRONMENTAL FIELD OFFICE
3711 MIDDLEBROOK PIKE
KNOXVILLE, TENNESSEE 37921-6538

December 17, 2013

Chairman Steve Field
Loudon County Solid Waste Disposal Board
100 River Road # 106
Loudon, Tennessee 37774

RE: Proposed Expansion of Loudon County Matlock Bend Landfill, SNL 53-0203
Notice of Deficiency

Dear Mr. Field:

In accordance with the Regulations Governing Solid Waste Processing and Disposal, Rule Chapter 0400-11-7, the application for a Major Permit Modification for the above facility has been reviewed for technical merit. Our review has determined the need for additional or revised information in the application text or plans in order to clarify, modify, or supplement the previously submitted material.

The permit process will proceed when the information requested is received which enables further review by the Knoxville Field Office with input from the Nashville's Central Office.

If you have any questions, please do not hesitate to contact me at (865) 594-5474.

Sincerely,

Paula Plont
Environmental Protection Specialist
Division of Solid Waste Management

Revendra Awasthi
Environmental Field Office Manager
Division of Solid Waste Management

cc: DSWM NCO
Santek – Ron Vail

Division of Solid Waste Management Comments
Class I Landfill Application
Loudon County Matlock Bend, SNL 53-0203

- The phased plans presented should include closure strategies/timelines. Please depict minimum closure areas (Rule 0400-11-.011-.03(2)(a)(b)2(i)(ii)) and fold such into the closure/post closure costs as developed. One improved element for the phasing sheets is to show the waste fill elevations and not the base liner grades for the applicable cells developed at each phase.
- In addition as the phases are developed, the site at some point will require a title V air permit. Please include supporting data (i.e. using EPA LandGem computer program) for predicting compliance year with the New Source Performance Standards.
- The stability analysis should include both short term (total stress-during operation) and long term stress (effective stress-after final closure) analysis.
- Stability calculations for intra-liner scenario (block failure) and intra-waste scenario (failure within the waste mass) are not included in the stability calculations.
- Critical cross section A-A geometry, chosen in analysis, does not agree with the proposed final elevation shown on sheet 9 and proposed base grade elevations shown on sheet 6 or 7. Please verify.
- The revised plan should include references/rationale used for input modeling parameters of waste and liner system. Use actual site specific shear strength data instead of published generic parameters, especially as this site's waste is dominated by industrial wastes.
- Clearly show/specify the details of the bottom liner used in stability computations and identify the critical failure plane.
- Sheet 10 A and Sheet 10 B: Plans show side slope benches of 50 to 60 vertical feet in height. The frequency of side slope swale or rather the vertical height distance should be based upon soil loss calculations on the final covered slope. We did not see any calculations to support this design choice. While spacing can extend towards 50 feet for MSW waste fills the Division considers swales spaced on 30 to 40 feet more appropriate in this instance where the waste stream is dominated by industrial wastes.
- Sheet 10 A does not clearly depict a perimeter ditch along the southern side of the lined fill area.
- Please reevaluate the size and number of let-down drainage pipes to ensure they have adequate design capacity, especially DS8 on Sheet 10 B.
- The roughness coefficient of the grass-lined side slope swale ditch (0.024) is incorrect as this value corresponds to corrugated metal pipe. It appears the ditch is undersized with this adjustment.
- Include for review the site's proposed watershed areas on a map and include networking route details through each proposed drainage structures.
- Include for review calculations for sediment pond #3 & pond # 4 the required and proposed storage volume.
- Pond # 3 calculation specifies the riser pipe as 24 inches whereas the plans show it to be 48 inches. Please verify.
- The chart on sheet 14 C outlines the distance between the bottom of the pond and the first orifice perforation as only 1 foot. This allows for very limited settling and the first orifice perforation should at a minimum start above the barrel pipe.
- The proposed storm water pumping discharge scenario does not slowly release waters off-site in similar manner as a gravity flow pond and is not considered sufficiently protective. Pond 4 should be built earlier or some version of that pond. The long term nature of waste permits and the existing Memorandum of Agreement with the Division of Water Resources dictates the Division of Solid Waste Management to fully incorporate storm water detention practices for this site now in this permitting phase and document.
- The numbering system for the Division's regulations has been changed from Rule 1200 to Rule 0400. Please correct all references.

Matlock Bend Landfill - Module H
2014 Airspace Projection / Construction Schedule
PENDING PERMIT AT CONTRACTURAL TONNAGE CAP

DATE	REMAINING AIRSPACE ¹ (CY)	MONTHLY TONNAGE	ACTUAL / PROJECTED ²	UTILIZATION FACTOR	MONTHLY VOLUME CONSUMED (CY)	ENDING MONTHLY REMAINING AIRSPACE (CY)
		24,000		1.07		
Sept. 20, 2013	8,018,082	-	-	-	-	-
Sept. 21-30, 2013	-	7,424	A	1.07	7,944	8,010,138
October	-	21,656	A	1.07	23,171	7,986,967
November	-	17,454	A	1.07	18,675	7,968,291
December	-	19,297	A	1.07	20,647	7,947,644
January '14	-	24,000	P	1.07	25,680	7,921,964
February	-	24,000	P	1.07	25,680	7,896,284
March	-	24,000	P	1.07	25,680	7,870,604
April	-	24,000	P	1.07	25,680	7,844,924
May	-	24,000	P	1.07	25,680	7,819,244
June	-	24,000	P	1.07	25,680	7,793,564
July	-	24,000	P	1.07	25,680	7,767,884
August	-	24,000	P	1.07	25,680	7,742,204
September	-	24,000	P	1.07	25,680	7,716,524
October	-	24,000	P	1.07	25,680	7,690,844
November	-	24,000	P	1.07	25,680	7,665,164
December	-	24,000	P	1.07	25,680	7,639,484

¹ = Remaining airspace based on Sept. 20, 2013 aerial survey.

² = Projected tonnages are based on a 3 month average per Matt Dillard on 6-2-09.

³ = Utilization rate based on the annual utilization rate per October 27, 2008 construction meeting (Avg. Utilization = 1.32 cy/ton)

Full Date

October-2039

Tonnage for Past 3 Months

October	21,656
November	17,454
December	19,297
Average	19,469

cc: Matt
 Rob
 Cheryl
 Ron
 Chris
 Levi
 Jason