

305 South Main St.
 Monroe, NC 28112
 Ph. 704.283.9765
 Fax: 704.283.9755



LETTER OF TRANSMITTAL

DATE	9/28/12	JOB NO.	101.07.07
ATTENTION:	Sheree Grant		
PHONE #	407-553-4939		
RE:	Vista Landfill		
Submittal(s):	See details below		

ORIGINAL

TO: Sheree Grant
WM Inc. of Florida Market Area Engineer
242 West Keene Road
Apopka, FL 32703

WE ARE SENDING YOU Attached via Binders the following items:
 Shop Drawings Prints Plans Samples Specifications
 Copy of Letter Change order Response LFG Permit Modifications

COPIES	DATE	NO.	DESCRIPTION
4		Originals	Send to FDEP, Attn: Thomas Lubozynski, P.E.
1		Copy	Send to Orange County
1		Copy	Sent to City of Apopka, Attn: Jay Davoll
1		Copy	Keep as WM's Copy

DEP Central District
 OCT 10 2012
 RECEIVED

THESE ARE TRANSMITTED as checked below:

For approval Approved as submitted Resubmit _____ copies for approval
 For your use Approved as noted Submit _____ copies for distribution
 As requested Not Approved Return _____ corrected prints
 For review and comment For redistribution
 FOR BIDS DUE PRINTS RETURNED AFTER LOAN TO US

REMARKS:
 None.

DEP Central District
 OCT 10 2012
 RECEIVED

COPY TO: None.

SIGNED:
 DATE: 9/28/12

If enclosures are not as noted, kindly notify us at once.



WASTE MANAGEMENT INC. OF FLORIDA

Vista Landfill, LLC
242 W. Keene Road
Apopka, FL 32703

October 4, 2012

ORIGINAL

RECEIVED
OCT 04 2012
FDEP Central District

Mr. Thomas Lubozynski, P.E.
Waste Program Administrator
Florida Department of Environmental Protection
Central District
3319 Maguire Blvd., Suite 232
Orlando, FL 32803

**Subject: Intermediate Class III Operation Permit Modification Application
Gas Management System
Vista Landfill, Class III
WACS Facility 87081
Permit No. SO48-0165969-018**

Dear Mr. Lubozynski,

Vista Landfill, LLC is pleased to submit this intermediate operation permit modification to modify the Vista Landfill, Class III (Vista Landfill) Operation Permit (Permit No. SO 48-0165969-018) to include additional information related to the landfill gas management system. The Florida Department of Environmental Protection (FDEP) has requested that the Operation Permit be revised to include information related to the existing gas management system and the planned expansion of the gas management system.

Also included with this submittal is a check in the amount of \$2,000 to cover the permit modification application fee.

If you have any questions or concerns, please feel free to contact us.

Respectfully Submitted,

Paul Bermillo
Environmental Protection Manager

cc: Craig Pelton – WMIF
Sheree Grant – WMIF
Seth A. Nunes, P.E. – CEC

**INTERMEDIATE CLASS III OPERATION PERMIT
MODIFICATION APPLICATION
GAS MANAGEMENT SYSTEM**

**VISTA LANDFILL, CLASS III FACILITY
242 WEST KEENE ROAD
APOPKA, FLORIDA 32703**



Prepared for:

WASTE MANAGEMENT INC. OF FLORIDA

Prepared by:

CEC

**CARLSON ENVIRONMENTAL CONSULTANTS, PC
305 South Main Street
Monroe, North Carolina 28112
(704) 283-9765**

September 2012

APPENDIX C

UPDATED FINANCIAL ASSURANCE ESTIMATE



Florida Department of Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

DEP Form # 62-701.900(28), F.A.C.
Form Title: Closure Cost Estimating Form
For Solid Waste Facilities
Effective Date: January 6, 2010
Incorporated in Rule 62-701.630(3), F.A.C.

CLOSURE COST ESTIMATING FORM FOR SOLID WASTE FACILITIES

Date of DEP Approval: _____

I. GENERAL INFORMATION:

Facility Name: Vista Landfill, LLC WACS ID: 87081
 Permit Application or Consent Order No.: SO48-0165969-018 Expiration Date: 11/9/16
 Facility Address: 242 West Keene Road, Apopka, Florida 32703
 Permittee or Owner/Operator: Vista Landfill, LLC
 Mailing Address: 242 West Keene Road, Apopka, Florida 32703

Latitude: 28° 38' 24.5" Longitude: 81° 30' 41.7"

Coordinate Method: State Plane Datum: NAD 83/90

Collected by: T. Jeffery Young, PSM, CP Company/Affiliation Pickett Surv. & Photogram

Solid Waste Disposal Units Included in Estimate:

Phase / Cell	Acres	Date Unit Began Accepting Waste	Active Life of Unit From Date of Initial Receipt of Waste	If active: Remaining life of unit	If closed: Date last waste received	If closed: Official date of closing
Phase 1/1	7.4	11/14/2008	5 years	5 years		
Phase 1/2	9.5	1/25/2010	5 years	5 years		
Phase 1/3	9.2	Proposed	5 years	5 years		

Total disposal unit acreage included in this estimate: Closure: 26.2 Long-Term Care: 26.2

Facility type: Class I Class III C&D Debris Disposal
 (Check all that apply) Other: Class III MRF

II. TYPE OF FINANCIAL ASSURANCE DOCUMENT (Check type)

- Letter of Credit* Insurance Certificate Escrow Account
 Performance Bond* Financial Test Form 29 (FA Deferral)
 Guarantee Bond* Trust Fund Agreement

* - Indicates mechanisms that require the use of a Standby Trust Fund Agreement

Northwest District
160 Government Center
Pensacola, FL 32502-5794
850-685-8360

Northeast District
7825 Baymeadows Way, Ste. B200
Jacksonville, FL 32256-7590
904-807-3300

Central District
3319 Maguire Blvd., Ste. 232
Orlando, FL 32803-3767
407-894-7555

Southwest District
13051 N. Telecom Pky.
Temple Terrace, FL 33637
813-632-7600

South District
2285 Victoria Ave., Ste. 364
Fort Myers, FL 33901-3881
239-332-6975

Southeast District
400 N. Congress Ave., Ste. 200
West Palm Beach, FL 33401
561-681-6800

III. ESTIMATE ADJUSTMENT

CFR Part 264 Subpart H as adopted by reference in Rule 62-701.630, Florida Administrative Code, (F.A.C.) sets forth the method of annual cost estimate adjustment. Cost estimates may be adjusted by using an inflation factor or by recalculating the maximum costs of closure in current dollars. Select one of the methods of cost estimate adjustment below.

(a) Inflation Factor Adjustment

(b) Recalculated or New Cost Estimates

Inflation adjustment using an inflation factor may only be made when a Department approved closure cost estimate exists and no changes have occurred in the facility operation which would necessitate modification to the closure plan. The inflation factor is derived from the most recent Implicit Price Deflator for Gross National Product published by the U.S. Department of Commerce in its survey of Current Business. The inflation factor is the result of dividing the latest published annual Deflatory by the Deflator for the previous year. The inflation factor may also be obtained from the Solid Waste website www.dep.state.fl.us/waste/categories/swfr or call the Financial Coordinator at (850) 245-8706.

This adjustment is based on the Department approved closing cost estimate dated: _____


Latest Department Approved Closing Cost Estimate:	x	Current Year Inflation Factor, e.g. 1.02	=	Inflation Adjusted Closing Cost Estimate:
_____		_____		_____

This adjustment is based on the Department approved long-term care cost estimate dated: _____

Latest Department Approved Annual Long-Term Care Cost Estimate:	x	Current Year Inflation Factor, e.g. 1.02	=	Inflation Adjusted Annual Long-Term Care Cost Estimate:
_____		_____		_____
Number of Years of Long Term Care Remaining:			x	_____
Inflation Adjusted Long-Term Care Cost Estimate:			=	_____

Signature by: Owner/Operator

Engineer (check what applies)



Signature

305 South Main Street

Address

Seth Nunes, Project Manager

Name & Title

Monroe, North Carolina 28112

City, State, Zip Code

8-7-12

Date

snunes@cecenv.com

E-Mail Address

(863)634-7185

Telephone Number

IV. ESTIMATED CLOSING COST (check what applies)

Recalculated Cost Estimate

New Facility Cost Estimate

- Notes: 1. Cost estimates for the time period when the extent and manner of landfill operation makes closing most exp
 2. Cost estimate must be certified by a professional engineer.
 3. Cost estimates based on third party suppliers of material, equipment and labor at fair market value.
 4. In some cases, a price quote in support of individual item estimates may be required.

Description	Unit	Number of Units	Cost / Unit	Total Cost
1. Proposed Monitoring Wells (Do not include wells already in existence.)				
	EA			
Subtotal Proposed Monitoring Wells:				
2. Slope and Fill (bedding layer between waste and barrier layer):				
Excavation	CY	21,102	\$3.00	\$63,306.00
Placement and Spreading	CY	21,102	\$2.10	\$44,314.20
Compaction	CY			
Off-Site Material	CY			
Delivery	CY			
Subtotal Slope and Fill:				\$107,620.20
3. Cover Material (Barrier Layer):				
Off-Site Clay	CY			
Synthetics - 40 mil	SY	126,614	\$4.68	\$592,553.52
Synthetics - GCL	SY			
Synthetics - Geonet	SY	74,135	\$5.22	\$386,984.70
Synthetics - Other (explain)	CY	63,307	\$8.50	\$538,109.50
Subtotal Cover Material:				\$1,517,647.72
4. Top Soil Cover:				
Off-Site Material	CY			
Delivery	CY			
Spread	CY	25,323	\$5.50	\$139,276.50
Subtotal Top Soil Cover:				\$139,276.50
5. Vegetative Layer				
Sodding	SY			
Hydroseeding	AC	26.2	\$1,936.00	\$50,723.20
Fertilizer	AC			
Mulch	AC			
Other (explain)				
Subtotal Vegetative Layer:				\$50,723.20
6. Stormwater Control System:				
Earthwork	CY			
Grading	SY			
Piping	LF	300	\$20.00	\$6,000.00
Ditches	LF	6,000	\$15.00	\$90,000.00
Berms	LF			
Control Structures	EA	2	\$2,000.00	\$4,000.00
Other (explain)				
Subtotal Stormwater Control System:				\$100,000.00

Description	Unit	Number of Units	Cost / Unit	Total Cost
7. Passive Gas Control:				
Wells	EA	_____	_____	_____
Pipe and Fittings	LF	_____	_____	_____
Monitoring Probes	EA	12	\$2,000.00	\$24,000.00
NSPS/Title V requirements	LS	1	_____	_____
Subtotal Passive Gas Control:				\$24,000.00
8. Active Gas Extraction Control:				
Traps	EA	_____	_____	_____
Sumps	EA	_____	_____	_____
Flare Assembly	EA	_____	_____	_____
Flame Arrestor	EA	_____	_____	_____
Mist Eliminator	EA	_____	_____	_____
Flow Meter	EA	_____	_____	_____
Blowers	EA	_____	_____	_____
Collection System	LF	_____	_____	_____
Other (explain) <u>Boots</u>	EA	10	\$500.00	\$5,000.00
Subtotal Active Gas Extraction Control:				\$5,000.00
9. Security System:				
Fencing	LF	_____	_____	_____
Gate(s)	EA	1	\$5,000.00	\$5,000.00
Sign(s)	EA	_____	_____	_____
Subtotal Security System:				\$5,000.00
10. Engineering:				
Closure Plan Report	LS	1	\$9,480.00	\$9,480.00
Certified Engineering Drawings	LS	1	\$25,200.00	\$25,200.00
NSPS/Title V Air Permit	LS	1	\$5,760.00	\$5,760.00
Final Survey	LS	1	\$8,760.00	\$8,760.00
Certification of Closure	LS	1	\$17,400.00	\$17,400.00
Other (explain) _____	_____	_____	_____	_____
Subtotal Engineering:				\$66,600.00

Description	Hours	Cost / Hour	Hours	Cost / Hour	Total Cost
11. Professional Services					
	<u>Contract Management</u>		<u>Quality Assurance</u>		
P.E. Supervisor	24	\$120.00	16	\$120.00	\$4,800.00
On-Site Engineer	40	\$120.00	80	\$120.00	\$14,400.00
Office Engineer	60	\$120.00	40	\$120.00	\$12,000.00
On-Site Technician	0	\$75.00	400	\$75.00	\$30,000.00
Other (explain) _____	_____	_____	_____	_____	_____

Description	Unit	Number of Units	Cost / Unit	Total Cost
Quality Assurance Testing	LS	1	\$100,000.00	\$100,000.00
Subtotal Professional Services:				\$161,200.00

Subtotal of 1-11 Above: \$2,177,067.62

12. Contingency 10 % of Subtotal of 1-11 Above \$217,706.76

Subtotal Contingency: \$217,706.76

Estimated Closing Cost Subtotal: \$2,394,774.38

Description	Total Cost
13. Site Specific Costs	
Mobilization	<u>\$61,478.03</u>
Waste Tire Facility	<u>\$3,828.13</u>
Materials Recovery Facility	<u> </u>
Special Wastes	<u> </u>
Leachate Management System Modification	<u> </u>
Other (explain) _____	<u> </u>
	<u> </u>
Subtotal Site Specific Costs:	<u>\$65,306.16</u>

TOTAL ESTIMATED CLOSING COSTS (\$): \$2,460,080.54

V. ANNUAL COST FOR LONG-TERM CARE

See 62-701.600(1)a.1., 62-701.620(1), 62-701.630(3)a. and 62-701.730(11)b. F.A.C. for required term length. For landfills certified closed and Department accepted, enter the remaining long-term care length as "Other" and provide years remaining. (Check Term Length) 5 Years 20 Years 30 Years Other, ___ Years

- Notes: 1. Cost estimates must be certified by a professional engineer.
 2. Cost estimates based on third party suppliers of material, equipment and labor at fair market value.
 3. In some cases, a price quote in support of individual item estimates may be required.

All items must be addressed. Attach a detailed explanation for all entries left blank.

Description	Sampling Frequency (Events / Year)	Number of Wells	(Cost / Well) / Event	Annual Cost
1. Groundwater Monitoring [62-701.510(6), and (8)(a)]				
Monthly	12	_____	_____	_____
Quarterly	4	_____	_____	_____
Semi-Annually	2	18	\$805.00	\$28,980.00
Annually	1	_____	_____	_____
Subtotal Groundwater Monitoring:				\$28,980.00
2. Surface Water Monitoring [62-701.510(4), and (8)(b)]				
Monthly	12	_____	_____	_____
Quarterly	4	_____	_____	_____
Semi-Annually	2	_____	_____	_____
Annually	1	_____	_____	_____
Subtotal Surface Water Monitoring:				_____
3. Gas Monitoring [62-701.400(10)]				
Monthly	12	_____	_____	_____
Quarterly	4	12	\$50.00	\$2,400.00
Semi-Annually	2	_____	_____	_____
Annually	1	_____	_____	_____
Subtotal Gas Monitoring:				\$2,400.00
4. Leachate Monitoring [62-701.510(5), (6)(b) and 62-701.510(8)c]				
Monthly	12	_____	_____	_____
Quarterly	4	_____	_____	_____
Semi-Annually	2	_____	_____	_____
Annually	1	_____	_____	_____
Other (explain) _____	_____	_____	_____	_____
Subtotal Leachate Monitoring:				_____

Description	Unit	Number of Units / Year	Cost / Unit	Annual Cost
5. Leachate Collection/Treatment Systems Maintenance				
<u>Maintenance</u>				
Collection Pipes	LF	_____	_____	_____
Sumps, Traps	EA	_____	_____	_____
Lift Stations	EA	4	\$100.00	\$400.00
Cleaning	LS	1	\$3,000.00	\$3,000.00
Tanks	EA	_____	_____	_____

Description	Unit	Number of Units / Year	Cost / Unit	Annual Cost
5. (continued)				
<u>Impoundments</u>				
Liner Repair	SY	_____	_____	_____
Sludge Removal	CY	_____	_____	_____
<u>Aeration Systems</u>				
Floating Aerators	EA	_____	_____	_____
Spray Aerators	EA	_____	_____	_____
<u>Disposal</u>				
Off-site (Includes transportation and disposal)	1000 gallon	<u>1</u>	<u>\$100.00</u>	<u>\$100.00</u>
Subtotal Leachate Collection / Treatment Systems Maintenance:				<u>\$3,500.00</u>
6. Groundwater Monitoring Well Maintenance				
Monitoring Wells	LF	_____	_____	_____
Replacement	EA	<u>3</u>	<u>\$2,000.00</u>	<u>\$6,000.00</u>
Abandonment	EA	<u>3</u>	<u>\$500.00</u>	<u>\$1,500.00</u>
Subtotal Groundwater Monitoring Well Maintenance:				<u>\$7,500.00</u>
7. Gas System Maintenance				
Piping, Vents	LF	_____	_____	_____
Blowers	EA	_____	_____	_____
Flaring Units	EA	_____	_____	_____
Meters, Valves	EA	_____	_____	_____
Compressors	EA	_____	_____	_____
Flame Arrestors	EA	_____	_____	_____
Operation	LS	<u>1</u>	<u>\$1,000.00</u>	<u>\$1,000.00</u>
Subtotal Gas System Maintenance:				<u>\$1,000.00</u>
8. Landscape Maintenance				
Mowing	AC	<u>26.2</u>	<u>\$65.00</u>	<u>\$1,703.00</u>
Fertilizer	AC	_____	_____	_____
Subtotal Landscape Maintenance:				<u>\$1,703.00</u>
9. Erosion Control and Cover Maintenance				
Sodding	SY	<u>500</u>	<u>\$1.35</u>	<u>\$675.00</u>
Regrading	AC	_____	_____	_____
Liner Repair	SY	_____	_____	_____
Clay	CY	_____	_____	_____
Subtotal Erosion Control and Cover Maintenance:				<u>\$675.00</u>
10. Storm Water Management System Maintenance				
Conveyance Maintenance	LS	<u>1</u>	<u>\$900.00</u>	<u>\$900.00</u>
Subtotal Storm Water Management System Maintenance:				<u>\$900.00</u>
11. Security System Maintenance				
Fences	LS	<u>1</u>	<u>\$900.00</u>	<u>\$900.00</u>
Gate(s)	EA	_____	_____	_____
Sign(s)	EA	<u>1</u>	<u>\$300.00</u>	<u>\$300.00</u>
Subtotal Security System Maintenance:				<u>\$1,200.00</u>

Description	Unit	Number of Units / Year	Cost / Unit	Annual Cost
12. Utilities	LS	1	\$12,240.00	\$12,240.00
Subtotal Utilities:				\$12,240.00
13. Leachate Collection/Treatment Systems Operation				
<u>Operation</u>				
P.E. Supervisor	HR			
On-Site Engineer	HR			
Office Engineer	HR			
OnSite Technician	HR	156	\$75.00	\$11,700.00
Materials	LS	1		
Subtotal Leachate Collection/Treatment Systems Operation:				\$11,700.00
14. Administrative				
P.E. Supervisor	HR	40	\$120.00	\$4,800.00
On-Site Engineer	HR	0	\$120.00	
Office Engineer	HR	40	\$120.00	\$4,800.00
OnSite Technician	HR	60	\$75.00	\$4,500.00
Other Lump				
Subtotal Administrative:				\$14,100.00
Subtotal of 1-14 Above:				\$85,898.00
15. Contingency	10	% of Subtotal of 1-14 Above		\$8,589.80
Subtotal Contingency:				\$8,589.80

Description	Unit	Number of Units / Year	Cost / Unit	Annual Cost
16. Site Specific Costs				
Subtotal Site Specific Costs:				

ANNUAL LONG-TERM CARE COST (\$ / YEAR): \$94,487.80

Number of Years of Long-Term Care: 30

TOTAL LONG-TERM CARE COST (\$): \$2,834,634.00

VI. CERTIFICATION BY ENGINEER

This is to certify that the Cost Estimates pertaining to the engineering features of this solid waste management facility have been examined by me and found to conform to engineering principles applicable to such facilities. In my professional judgment, the Cost Estimates are a true, correct and complete representation of the financial liabilities for closing and/or long-term care of the facility and comply with the requirements of Rule 62-701.630 F.A.C. and all other Department of Environmental Protection rules, and statutes of the State of Florida. It is understood that the Cost Estimates shall be submitted to the Department annually, revised or adjusted as required by Rule 62-701.630(4), F.A.C.

BETH A. NUNES
PROFESSIONAL ENGINEER LICENSE
 No. 69457

Signature

STATE OF FLORIDA
 Name and Title (please type)
PROFESSIONAL ENGINEER

Date

305 South Main Street
 Mailing Address

Monroe, North Carolina 28112
 City, State, Zip Code

snunes@cecenv.com
 E-Mail address (if available)

69457
 Florida Registration Number
 (please affix seal)

(863) 634-7185
 Telephone Number

VII. SIGNATURE BY OWNER/OPERATOR


 Signature of Applicant

Timothy Hawkins, Vice President
 Name and Title (please type)

thawkins@wm.com
 E-Mail address (if available)

242 West Keene Road
 Mailing Address

Apopka, FL 32703
 City, State, Zip Code

407-553-4939
 Telephone Number

CARLSON ENVIRONMENTAL CONSULTANTS, PC			
CLIENT	PROJECT	JOB NO.	
WM of Inc. of Florida	Vista Landfill	101.07.07	
SUBJECT		BY	DATE
FINANCIAL ASSURANCE		Lindsey Kennelly	9/7/12
		CHECKED	DATE
		SAN	9/7/12

OBJECTIVE: The 2/17/11 renewal accounted for financial assurance closure and long-term care costs for 35.3 acres, which is comprised of the following Phase I areas:

PHASE 1

Cell 1	7.39	acres
Cell 2	9.54	acres
Cell 3	9.23	acres
Cell 4	9.14	acres
Total Phase I	35.3	acres

Cell 1, 2, and 3 have been constructed at the time of this permit modification. Therefore, the financial assurance is being updated to reflect the closure and long-term care costs of Cells 1, 2, and 3.

PHASE 1

Cell 1	7.39	acres			
Cell 2	9.54	acres			
Cell 3	9.23	acres			
Total Closure Acreage	26.2	acres =	1,139,530	SF =	126,614 SY

CLOSURE COSTS

1. Monitoring Wells:

The groundwater monitoring well system for has already been installed. No additional cost is included.

2. Slope and Fill:

On-site soils to be used for 6-inches of intermediate cover

Quantity

Intermediate Cover Volume = 569,765 CF = 21,102 CY

Unit Cost

Placement, spreading, and compaction cost = \$2.10 /CY Appendix C-1
 Excavation, hauling on-site material cost = \$3.00 /CY Appendix C-1

3. Cover Material (Barrier Layer)

Off-site soils to be used for 18-inches of protective cover

Quantity

40 mil HDPE Textured Geomembrane = 126,614 SY
 Geocomposite drainage layer) = 74,135 SY (only on 3:1 sideslopes obtained in AutoCAD)
 18-inches Protective Cover Soil Volume = 1,709,294 CF = 63,307 CY = Total Acreage * 1.5 feet

Unit Cost

40 mil HDPE Textured Geomembrane: Material/installation = \$0.52 /SF = \$4.68 /SY Appendix C-1
 Geocomposite drainage layer: Material/installation = \$0.58 /SF = \$5.22 /SY Appendix C-1
 Protective Cover Soil Volume: Material Cost = \$5.00 /CY Appendix C-1
 Excavation, hauling off-site cost = \$3.50 /CY Appendix C-1
Total Protective Cover Soil = \$8.50 /CY

4. Top Soil Cover

On-site soils to be used for 6-inches of vegetative cover

Quantity

6-inches Vegetative Cover Volume = 683,718 CF = 25,323 CY

Unit Cost

Excavation, placement, and spreading cost = \$3.50 /CY Appendix C-1
 Material cost = \$2.00 /CY Appendix C-1
Total Top Soil = \$5.50 /CY

CARLSON ENVIRONMENTAL CONSULTANTS, PC			
CLIENT	PROJECT	JOB NO.	
WM of Inc. of Florida	Vista Landfill	101.07.07	
SUBJECT		BY	DATE
FINANCIAL ASSURANCE		Lindsey Kennelly	9/7/12
		CHECKED	DATE
		SAN	9/7/12

5. *Vegetative Layer*

Final cover will be hydroseeded.

Quantity

Hydroseeded Area = 26.2 acres

Unit Cost

Hydroseed: Material/installation = \$0.40 /SY = \$1,936.00 /acre Appendix C-1

6. *Stormwater Control System*

Installation of piping, ditches/berms, and control structures

Quantity

Earthwork = 10,000 CY

Assuming Berms/Ditches are 3 feet deep by 15 feet wide

Earthwork Length = 6000 LF

Stormwater Piping = 300 LF

No. of control structures = 2 EA

Unit Cost

Earthwork: Material/installation = \$15.00 /LF Appendix C-1

Stormwater Piping: Material/installation = \$20.00 /LF Appendix C-1

Control structures: Material/installation = \$2,000.00 EA Appendix C-1

7. *Gas Controls - Passive*

12 probes are proposed for closure

Quantity

No. of Probes = 12 EA

Length of Probes = 15 ft/probe

Unit Cost

Probe: Material/installation = \$2,000 EA Appendix C-1

8. *Gas Controls - Active Extraction*

Installation of boots around vents/wells at time of closure (Cells 1 through 3).

Quantity

No. of Boots = 10 EA

Unit Cost

Synthetic boot: Material/installation = \$500 EA Appendix C-1

9. *Security System*

Perimeter fencing, gates, and signs to be repaired before closure

Assume lump sum fee of \$5,000

10. *Engineering*

Include a lump sum fee for each of the following items:

- Closure Plan Report =

	<u>Quantity</u>	<u>Unit Cost</u>	
PE Supervisor =	24 hrs	\$120	
On-Site Engineer =	0 hrs	\$120	
Office Engineer =	40 hrs	\$120	
On-Site Technician =	24 hrs	\$75	(Drafting technician)

CARLSON ENVIRONMENTAL CONSULTANTS, PC			
CLIENT	PROJECT	JOB NO.	
WM of Inc. of Florida	Vista Landfill	101.07.07	
SUBJECT FINANCIAL ASSURANCE		BY	DATE
		Lindsey Kennelly	9/7/12
		CHECKED	DATE
		SAN	9/7/12

TOTAL CLOSURE PLAN REPORT = \$9,480

- Certified Engineering Drawings for Closure =

	<u>Quantity</u>	<u>Unit Cost</u>	
PE Supervisor =	40 hrs	\$120	
On-Site Engineer =	0 hrs	\$120	
Office Engineer =	120 hrs	\$120	
On-Site Technician =	80 hrs	\$75	(Drafting technician)
TOTAL CERTIFIED ENGINEERING DRAWINGS =		\$25,200	

- Title V Closure Permit

	<u>Quantity</u>	<u>Unit Cost</u>	
PE Supervisor =	8 hrs	\$120	
On-Site Engineer =	0 hrs	\$120	
Office Engineer =	40 hrs	\$120	
On-Site Technician =	0 hrs	\$75	
TOTAL TITLE V CLOSURE PERMIT =		\$5,760	

- Final Survey =

	<u>Quantity</u>	<u>Unit Cost</u>	
PE Supervisor =	8 hrs	\$120	
On-Site Engineer =	0 hrs	\$120	
Office Engineer =	40 hrs	\$120	
On-Site Technician =	40 hrs	\$75	(Survey technician)
TOTAL FINAL SURVEY =		\$8,760	

- Certification of Closure =

	<u>Quantity</u>	<u>Unit Cost</u>	
PE Supervisor =	40 hrs	\$120	
On-Site Engineer =	0 hrs	\$120	
Office Engineer =	80 hrs	\$120	
On-Site Technician =	40 hrs	\$75	(Drafting technician)
TOTAL CERTIFICATION OF CLOSURE =		\$17,400	

11. Professional Services

Include hourly estimates for Professional Services involved with Closure:

- Contract Management

	<u>Quantity</u>	<u>Unit Cost</u>	
PE Supervisor =	24 hrs	\$120	
On-Site Engineer =	40 hrs	\$120	
Office Engineer =	60 hrs	\$120	
On-Site Technician =	0 hrs	\$75	

- Quality Assurance

	<u>Quantity</u>	<u>Unit Cost</u>	
PE Supervisor =	16 hrs	\$120	
On-Site Engineer =	80 hrs	\$120	
Office Engineer =	40 hrs	\$120	
On-Site Technician =	400 hrs	\$75	

Quality Assurance Testing = \$100,000

12. Contingency

Assume 10% of Closure Costs

13. Site Specific Costs

Mobilization

CARLSON ENVIRONMENTAL CONSULTANTS, PC			
CLIENT	PROJECT	JOB NO.	
WM of Inc. of Florida	Vista Landfill	101.07.07	
SUBJECT	BY	DATE	
FINANCIAL ASSURANCE	Lindsey Kennelly	9/7/12	
	CHECKED	DATE	
	SAN	9/7/12	

Mobilization to include 3% of the construction costs (i.e. not No. 10 - Engineering or No. 11 - Professional Services)

Closure Subtotal of Items 1-11 = \$2,177,068
 Total Item 10 = \$66,600
 Total Item 11 = \$61,200
 Closure Subtotal of Items 1-9 = \$2,049,268

Mobilization Cost = \$61,478.03

Waste Tire Facility

The site is currently permitted to store a maximum 1,500 tires on site. Assume at closure 1,500 tires are present. Tires are taken to Wheelabrator Ridge Energy, Polk County FL for processing/disposal.

Quantity

No. of Tires = 1,500 EA
 No. of Tires w/ Rims = 750 EA
 No. of Tires w/out Rims = 750 EA
 Weight of Tire w/ Rims = 35 lb/EA
 Weight of Tire w/out Rims = 30 lb/EA

 Total Weight of Tires w/ Rims = 13.13 tons
 Total Weight of Tires w/o Rims = 11.25 tons
 TOTAL WEIGHT = 24.38 tons

Unit Cost

Tires w/ Rims = \$125 /ton Appendix C-3
 Tires w/o Rims = \$70 /ton Appendix C-3
 Hauling Cost = \$700 /trip Appendix C-3
 Hauling Limit = 22 tons

Cost of Tires w/ Rims = \$1,640.63
 Cost of Tires w/o Rims = \$787.50
 Hauling Cost = \$1,400.00
 TOTAL WASTE TIRE FACILITY COST = \$3,828.13

LONG-TERM CARE COSTS

1. Groundwater Monitoring

18 monitoring wells installed and sampled on a semi-annual basis

Quantity

No. of Groundwater Wells = 18 wells

Unit Cost

Semi-annual Sampling Costs = \$4,800 /per event See Appendix C-2
 Semi-annual Analysis Costs = \$5,183 /per event See Appendix C-2
 Semi-annual Reporting Costs = \$4,500 /per event See Appendix C-2
 TOTAL SEMI-ANNUAL COST = \$14,483 /per event
 TOTAL ANNUAL COST = \$28,966 /year

Unit Cost Per Well = \$1,609 annually
 Unit Cost Per Well = \$805 semi-annually

2. Surface Water

The site does not have a discharge from the 100-year storm event. No surface water monitoring is included.

CARLSON ENVIRONMENTAL CONSULTANTS, PC			
CLIENT	PROJECT	JOB NO.	
WM of Inc. of Florida	Vista Landfill	101.07.07	
SUBJECT		BY	DATE
FINANCIAL ASSURANCE		Lindsey Kennelly	9/7/12
		CHECKED	DATE
		SAN	9/7/12

3. Gas Monitoring

12 monitoring probes installed and sampled quarterly

Quantity

No. of Gas Probes = 12 probes

Unit Cost

LABOR COSTS

	<u>Quantity</u>	<u>Unit Cost</u>	
PE Supervisor =	8 hrs	\$120	(2 hours of report review per quarterly event)
On-Site Engineer =	0 hrs	\$120	
Office Engineer =	0 hrs	\$120	
<u>On-Site Technician =</u>	<u>16 hrs</u>	<u>\$75</u>	<u>(4 hours of sampling per quarterly event)</u>
Total Labor Costs =		\$2,160	

EQUIPMENT/ANALYSIS COSTS =

Combustible Gas Meter Rental = \$100 /event = \$400

Cost per probe basis = [(Total Labor Costs) + (Total Equipment/Analysis Costs)]/(No. of Probes)/4 quarters = \$50

4. Leachate

Per conversations with FDEP, Vista is no longer required to sample leachate annual.

5. Leachate Collection System Maintenance

- Leachate Collection Pipes

One cleaning event during the long-term care period

Quantity

No. of Collection Pipe Cleaning Events = 1 Event

Unit Cost

Clean LCRS Pipe Cost = \$ 3,000 EA

- Leachate Pumps

Replace 4 pumps during the long-term care period

Quantity

No. of Pumps Replaced = 4 EA

Unit Cost

Pump Replacement = \$ 3,000 EA

Extrapolate Cost over 30 Yr Period = \$ 100 EA

- Leachate Disposal

Quantity

Leachate Volume = 200 gal/yr Per 2007 Leachate Collection System Analysis by Geosyntec Consultants

Unit Cost

Leachate treatment costs = \$0.12 /gal for treatment at City WWTP

Disposal Cost = (Leachate Volume)*(Treatment Cost) = \$24.00 ~ Assume \$100/year

6. Maintenance of Groundwater Monitoring Wells

Abandon and replace 3 groundwater monitoring wells during the long-term care period

CARLSON ENVIRONMENTAL CONSULTANTS, PC			
CLIENT	PROJECT	JOB NO.	
WM of Inc. of Florida	Vista Landfill	101.07.07	
SUBJECT		BY	DATE
FINANCIAL ASSURANCE		Lindsey Kennelly	9/7/12
		CHECKED	DATE
		SAN	9/7/12

Quantity
No. of Groundwater Monitoring Wells = 3 EA

Unit Cost
Abandonment Cost (grouting): Material/Performance = \$500 EA Appendix C-1
2-inch Groundwater Monitoring Well: Material/installation = \$2,000 EA Appendix C-1

7. Gas System Maintenance

LABOR COSTS

	<u>Quantity</u>	<u>Unit Cost</u>	
PE Supervisor =	0 hrs	\$120	
On-Site Engineer =	0 hrs	\$120	
Office Engineer =	0 hrs	\$120	
<u>On-Site Technician =</u>	<u>8 hrs</u>	<u>\$75</u>	<u>Annual costs to make misc. repairs (e.g. vent/well repair, lateral repair, etc).</u>
Total Labor Costs =		\$600	

MATERIAL COSTS

Pipe/Material Costs = \$400 annual costs for materials to make misc. repairs

Labor/Material Costs (Included as Operations on form) = \$1,000 Annually

8. Landscape

Quantity

No. of Mowing Events = 1 Events/yr
No. of Acres per Event = 26.2 acres/event
No. of Acres per Year = 26.16 acres/yr

Unit Cost

Mowing Cost = \$65.00 /acre Appendix C-1

9. Erosion Control and Cover Maintenance

- Sodding

Repair 500 SY of sod on an annual basis

Quantity

Area of Sod to be repaired (S) = 500 SY

Unit Cost

Sod: Material/Installation = \$1.35 /SY Appendix C-1

10. Stormwater Management System Maintenance

Maintain the stormwater conveyance system annually. Assume it takes an on-site technician 12 hours

	<u>Quantity</u>	<u>Unit Cost</u>
PE Supervisor =	0 hrs	\$120
On-Site Engineer =	0 hrs	\$120
Office Engineer =	0 hrs	\$120
On-Site Technician =	12 hrs	\$75
Total Stormwater Costs =		\$900

11. Security System Maintenance

Maintain the security system annually. Assume it takes an on-site technician to do so.

- Fence

Quantity Unit Cost

CARLSON ENVIRONMENTAL CONSULTANTS, PC			
CLIENT	PROJECT	JOB NO.	
WM of Inc. of Florida	Vista Landfill	101.07.07	
SUBJECT		BY	DATE
FINANCIAL ASSURANCE		Lindsey Kennelly	9/7/12
		CHECKED	DATE
		SAN	9/7/12

PE Supervisor =	0 hrs	\$120
On-Site Engineer =	0 hrs	\$120
Office Engineer =	0 hrs	\$120
On-Site Technician =	12 hrs	\$75
	Total Fence Costs =	\$900

- Signs

	<u>Quantity</u>	<u>Unit Cost</u>
PE Supervisor =	0 hrs	\$120
On-Site Engineer =	0 hrs	\$120
Office Engineer =	0 hrs	\$120
On-Site Technician =	4 hrs	\$75
	Total Sign Costs =	\$300

12. Utilities

Use current utility costs to conservatively estimate the future utility costs.

Quantity

No. of Utility Events = 12 EA

Unit Cost

Monthly Utility Cost = \$1,020

Annual Utility Costs = \$12,240

13. Leachate Collection/Treatment System Operations

Periodic, weekly inspections

Quantity

Hours per week = 3

Hours per year = 156

Unit Cost

On-site technician hourly rate = \$75 /hour

14. Administrative

Annual administrative/overhead costs

	<u>Quantity</u>	<u>Unit Cost</u>
PE Supervisor =	40 hrs	\$120
On-Site Engineer =	0 hrs	\$120
Office Engineer =	40 hrs	\$120
On-Site Technician =	60 hrs	\$75
	Total Administrative Costs =	\$14,100

15. Contingency

Assume 10% of Annual Long-Term Care Costs

APPENDIX C-1
THIRD PARTY ESTIMATES – ERC



ERC GENERAL CONTRACTING SERVICES, INC.

Carter CommerCenter • 890 Carter Road, Suite 170
Winter Garden, Florida 34787
(407) 656-3900 • Fax (407) 656-2128

September 12, 2012

RE: Closure Costs

Dear Lindsey Kennelly, PE

The following are current closure costs for work which include offsite and onsite materials.

CLOSURE COSTS		
1. Monitoring Wells:		
<u>Unit Cost</u>		
2-inch Groundwater Monitoring Well: Material/installation =	\$2000	ea
2. Slope and Fill:		
<u>Unit Cost</u>		
Placement, Spreading, and Compaction Cost =	\$2.10	/cy
Excavation, Hauling On-Site Material cost =	\$3.00	/cy
Excavation, Hauling Off-Site Material cost =	\$5.00	/cy
3. Cover Material (Barrier Layer)		
<u>Unit Cost</u>		
10 ⁻⁵ cm/sec clay Material/Installation=	\$12.00	/cy
40-mil HDPE textured geomembrane: Material/Installation:	\$0.52	/sf
40-mil LLDPE liner: Material/Installation =	\$0.46	/sf
Geonet drainage layer: Material/Installation =	\$0.25	/sf
Geocomposite drainage layer: Material/Installation =	\$0.58	/sf
18-inches soil excavation, placement, and spreading cost =	\$3.50	/cy
18-inches soil Material cost =	\$5.00	/cy
4. Top Soil cover		
<u>Unit Cost</u>		
6-Inches Excavation, placement, and spreading cost =	\$3.50	/cy
6-Inches Material cost =	\$2.00	/cy
24-Inches Excavation, placement, and spreading cost =	\$3.00	/cy
24-Inches Material cost =	\$8.00	/cy
5. Vegetative Layer		
<u>Unit Cost</u>		



Sod: Material and installation cost -	\$1.35	/sy	
Hydroseed: Material and installation cost =	\$0.40	/sy	
Fertilizer: Material and installation cost =	\$0.05	/sy	
6. Stormwater Control System			
<u>Unit Cost</u>			
Earthwork: Material/installation =	\$15	/lf	
18-inch Stormwater Piping: Material/installation =	\$20	/lf	
Control structures: Material/installation =	\$2000	ea	
7. Gas Controls - Passive			
<u>Unit Cost</u>			
2-inch LFG Probe: Material/installation =	\$2000	ea	
8. Gas Controls - Active			
<u>Unit Cost</u>			
Synthetic boots around 6-inch casing: Material/installation =	\$500	ea	
9. Security System			
<u>Unit Cost</u>			
Signs: Material/installation =	\$180	ea	
LONG-TERM CARE COSTS			
5. Leachate Collection System Maintenance			
<u>Unit Cost</u>			
Clean leachate collection system piping cost =	\$3000	ea	
Replace 4 leachate pumps: Material/Installation =	\$3000	ea	
6. Maintenance of Groundwater Monitoring Wells			
<u>Unit Cost</u>			
Abandonment Cost (grouting): Material/Performance =	\$500	ea	
2-inch Groundwater Monitoring Well: Material/installation =	\$2000	ea	
8. Landscape			
Mowing performed quarterly			
<u>Unit Cost</u>			
Mowing Cost =	\$65	/acre	
9. Erosion Control and Cover Maintenance			
<u>Unit Cost</u>			
Sod: Material and installation cost -	\$1.35	/sy	
40-mil LLDPE liner: Material/Installation =	\$0.46	/sf	
Geonet drainage layer: Material/Installation =	\$0.25	/sf	

Sincerely,

Jerry L. Pinder
President, ERC

APPENDIX C-2

THIRD PARTY ESTIMATE – GROUNDWATER MONITORING COSTS

Vista Groundwater Cost Estimates

1st Semi-Annual Event

(Based on invoices and scopes provided by third-party consultants)

- 1) SAMPLING: ProTech = \$4,800
- 2) ANALYSIS: Test America = \$5,183
- 3) REPORTING: SCS = \$4,500

2nd Semi-annual event

(Based on invoices and scopes provided by third-party consultants)

- 1) SAMPLING: ProTech = \$4,800
- 2) ANALYSIS: Test America = \$6,190
- 3) REPORTING: SCS = \$4,500

APPENDIX C-3

THIRD PARTY ESTIMATE – WASTE TIRE FACILITY

Lindsey Kennelly

Subject: WMIF - 2012 Class III SW Application Financial Assurance

From: Perez, Deborah [<mailto:dperez@wm.com>]
Sent: Tuesday, September 18, 2012 9:44 AM
To: Berrillo, Paul; Lindsey Kennelly
Cc: 'Seth Nunes'; 'Amy Nunes'; Pelton, Craig; Grant, Sheree
Subject: RE: WMIF - 2012 Class III SW Application Financial Assurance

Vista send their tires to Wheelabrator.

Cost for disposal:

Tires w/rims = \$125.00/ton

Tires w/o rims = \$70.00/ton.

Cost to haul to Wheelabrator from Vista = \$700.00

Get about 22 tons on a truck.