



# FLORIDA DEPARTMENT OF Environmental Protection

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

Rick Scott  
Governor

Carlos Lopez-Cantera  
Lt. Governor

Noah Valenstein  
Secretary

November 16, 2018

Transmitted via E-Mail only to: [rmontgomery@co.volusia.fl.us](mailto:rmontgomery@co.volusia.fl.us)

Regina Montgomery, Director  
Volusia County Solid Waste Division  
3151 East New York Avenue  
DeLand, FL 32724

RE: Tomoka Farms Road Solid Waste Management Facility – Class I, North Cell  
Detailed Closure Cost Estimate Approval  
Permit No. 0078767-030-SO-01, Volusia County  
WACS No: 27540

Dear Ms. Montgomery,

This letter is to acknowledge receipt of the subject facility's updated detailed closure cost estimates dated August 23, 2018 and received August 28, 2018 as Financial Responsibility Closure & Long-Term Care Cost Estimates FY 2018. This cost estimate was prepared by HDR Engineering, Inc., for the Class I North Cell of the Tomoka Farms Road Solid Waste Management Facility. This cost estimate provides closure and long-term care costs for the 77.85 acres of the Class I - North Cell. The recalculated estimate(s) were submitted to comply with Rule 62-701.630(4)(b), Florida Administrative Code, (F.A.C.). The following cost estimates received on August 28, 2018 are **APPROVED for 2019:**

Closing – \$10,852,173.43  
Annual Long-term care – \$185,682.84  
Total Long-term care – \$5,570,485.34 for 30 years

The next annual cost estimate update is due between July 1 and September 1, 2020.

A copy of these estimates will be forwarded to the Financial Coordinator, FDEP, 2600 Blair Stone Road, MS 4565, Tallahassee, Florida 32399-2400. Please work with Susan Eldredge at (850) 245-8740 or [susan.f.eldredge@dep.state.fl.us](mailto:susan.f.eldredge@dep.state.fl.us) directly to assess the facility's compliance with the funding mechanism requirements of Rule 62-701.630, F.A.C. If you have any questions, you may contact me at (850) 245-8744.

Ms. Montgomery  
November 16, 2018  
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Most information received or sent by the Department is public record and is placed in OCULUS, an electronic database. You can view this and other documents for this facility at the following link:

[http://appprod.dep.state.fl.us/WWW\\_WACS/Reports/SW\\_Facility\\_Docs.asp?wacsid=27540](http://appprod.dep.state.fl.us/WWW_WACS/Reports/SW_Facility_Docs.asp?wacsid=27540)

Sincerely,

A handwritten signature in blue ink that reads "El Kromhout". The signature is written in a cursive style with a large initial "E".

El Kromhout, P.G.  
Solid Waste Section  
Permitting and Compliance Assistance Program

Enclosure: North Cell Cost Estimate Form

cc:

Mark Roberts, P.E., HDR Engineering, Inc., [Mark.Roberts@hdrinc.com](mailto:Mark.Roberts@hdrinc.com)

Jennifer Stirk, Volusia County, [JStirk@volusia.org](mailto:JStirk@volusia.org)

Junos Reed, Volusia County, [JReed@volusia.org](mailto:JReed@volusia.org)

Central District, [DEP\\_CD@dep.state.fl.us](mailto:DEP_CD@dep.state.fl.us)

Cory Dilmore, P.E., FDEP Solid Waste, [cory.dilmore@flordadep.gov](mailto:cory.dilmore@flordadep.gov)

[Solid.Waste.Financial.Coordinator@dep.state.fl.us](mailto:Solid.Waste.Financial.Coordinator@dep.state.fl.us)



# 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: Tomoka Farms Road Landfill-North Cell, Class I WACS ID: 27540  
Permit Application or Consent Order No.: 0078767-030-SO-01 Expiration Date: 05/13/2033  
Facility Address: 1990 Tomoka Farms Road, Daytona Beach, Florida  
Permittee or Owner/Operator: Volusia County Solid Waste Division  
Mailing Address: 3151 East New York Avenue, DeLand, Florida 32724

Latitude: 29° 07' 50" Longitude: 81° 06' 02"  
Coordinate Method: AutoCAD/GPS Datum: NAD 1983/90 (east)  
Collected by: J.E. Zapert Company/Affiliation: Sliger & Associates, Inc.

### 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
North Cell - Excluding Area 4	77.85	June 1999	19 years	5 years	NA	NA

Total disposal unit acreage included in this estimate: Closure: 77.85 Long-Term Care: 77.85

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

### 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  
850-595-8360

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  
2295 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  
561-681-6600

**III. ESTIMATE ADJUSTMENT**

40 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](http://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 <b>Closing Cost Estimate:</b>	Current Year Inflation Factor, <b>e.g. 1.02</b>		Inflation Adjusted Closing Cost Estimate:
_____	x _____	=	_____

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

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

Signature by:  Owner/Operator

Engineer (check what applies)

  
Signature

200 W. Forsyth St., Ste. 800  
Address

Mark G. Roberts, Project Manager  
Name & Title

Jacksonville, FL 32202-4321  
City, State, Zip Code

8/23/18  
Date

Mark.Roberts@hdrinc.com  
E-Mail Address

(904)-598-8900  
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
<b>1. Proposed Monitoring Wells (Do not include wells already in existence.)</b>				
	EA			
				Subtotal Proposed Monitoring Wells:
<b>2. Slope and Fill (bedding layer between waste and barrier layer):</b>				
Excavation	CY			
Placement and Spreading	CY			
Compaction	CY			
Off-Site Material	CY			
Delivery	CY			
				Subtotal Slope and Fill:
<b>3. Cover Material (Barrier Layer):</b>				
Off-Site Clay	CY	207,287	\$4.88	\$1,011,560.56
Synthetics - 40 mil	SY	410,626	\$5.10	\$2,094,192.60
Synthetics - GCL	SY			
Synthetics - Geonet	SY			
Synthetics - Other (explain)	SY	410,626	\$7.43	\$3,050,951.18
Double Sided Geocomposite				Subtotal Cover Material:
				\$6,156,704.34
<b>4. Top Soil Cover:</b>				
Off-Site Material	CY	69,396	\$4.88	\$338,652.48
Delivery	CY			
Spread	CY			
				Subtotal Top Soil Cover:
				\$338,652.48
<b>5. Vegetative Layer</b>				
Sodding	SY	352,093	\$3.03	\$1,066,841.79
Hydroseeding	AC	8.83	\$3,125.00	\$27,593.75
Fertilizer	AC			
Mulch	AC			
Other (explain)				
				Subtotal Vegetative Layer:
				\$1,094,435.54
<b>6. Stormwater Control System:</b>				
Earthwork	CY			
Grading	SY			
Piping	LF	8,124	\$21.06	\$171,091.44
Ditches	LF			
Berms	LF			
Control Structures	EA	15	\$1,550.00	\$23,250.00
Other (explain)	LS	1	\$532,360.00	\$532,360.00
See Attachment 2, Items 6(c) & 6(d)				Subtotal Stormwater Control System:
				\$726,701.44

Description	Unit	Number of Units	Cost / Unit	Total Cost
<b>7. Passive Gas Control:</b>				
Wells	EA	_____	_____	_____
Pipe and Fittings	LF	_____	_____	_____
Monitoring Probes	EA	_____	_____	_____
NSPS/Title V requirements	LS	1	_____	_____
Subtotal Passive Gas Control:				_____
<b>8. Active Gas Extraction Control:</b>				
Traps	EA	_____	_____	_____
Sumps	EA	_____	_____	_____
Flare Assembly	EA	_____	_____	_____
Flame Arrestor	EA	_____	_____	_____
Mist Eliminator	EA	_____	_____	_____
Flow Meter	EA	_____	_____	_____
Blowers	EA	_____	_____	_____
Collection System	LF	_____	_____	_____
Other (explain) _____	LS	1	\$501,134.00	\$501,134.00
Subtotal Active Gas Extraction Control:				\$501,134.00
See Attachment 2, Items 8(a) to 8(q)				
<b>9. Security System:</b>				
Fencing	LF	1	\$2,000.00	\$2,000.00
Gate(s)	EA	_____	_____	_____
Sign(s)	EA	_____	_____	_____
Subtotal Security System:				\$2,000.00
<b>10. Engineering:</b>				
Closure Plan Report	LS	1	\$50,000.00	\$50,000.00
Certified Engineering Drawings	LS	1	\$25,000.00	\$25,000.00
NSPS/Title V Air Permit	LS	1	\$20,000.00	\$20,000.00
Final Survey	LS	1	\$25,000.00	\$25,000.00
Certification of Closure	LS	1	\$50,000.00	\$50,000.00
Other (explain) _____	_____	_____	_____	_____
Subtotal Engineering:				\$170,000.00

Description	Hours	Cost / Hour	Hours	Cost / Hour	Total Cost
<b>11. Professional Services</b>					
	<u>Contract Management</u>		<u>Quality Assurance</u>		
P.E. Supervisor	160	\$130.00	80	\$130.00	\$31,200.00
On-Site Engineer	300	\$100.00	180	\$100.00	\$48,000.00
Office Engineer	200	\$100.00	144	\$100.00	\$34,400.00
On-Site Technician	_____	_____	2,992	\$65.00	\$194,480.00
Other (explain) _____	_____	_____	1	\$50,000.00	\$50,000.00
Lump Sum Amount _____					

Description	Unit	Number of Units	Cost / Unit	Total Cost
Quality Assurance Testing	LS	1	\$75,000.00	\$75,000.00
Subtotal Professional Services:				\$433,080.00



**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
<b>1. Groundwater Monitoring [62-701.510(6), and (8)(a)]</b>				
Monthly	12	_____	_____	_____
Quarterly	4	_____	_____	_____
Semi-Annually	2	_____	_____	_____
Annually	1	_____	_____	_____
Subtotal Groundwater Monitoring:				_____
<b>2. Surface Water Monitoring [62-701.510(4), and (8)(b)]</b>				
Monthly	12	_____	_____	_____
Quarterly	4	_____	_____	_____
Semi-Annually	2	7	\$423.15	\$5,924.10
Annually	1	_____	_____	_____
Subtotal Surface Water Monitoring:				\$5,924.10
<b>3. Gas Monitoring [62-701.400(10)]</b>				
Monthly	12	_____	_____	_____
Quarterly	4	1	\$2,150.00	\$8,600.00
Semi-Annually	2	_____	_____	_____
Annually	1	_____	_____	_____
Subtotal Gas Monitoring:				\$8,600.00
<b>4. Leachate Monitoring [62-701.510(5), (6)(b) and 62-701.510(8)c]</b>				
Monthly	12	_____	_____	_____
Quarterly	4	_____	_____	_____
Semi-Annually	2	_____	_____	_____
Annually	1	_____	_____	_____
Other (explain) _____	_____	_____	_____	_____
Subtotal Leachate Monitoring:				_____

Description	Unit	Number of Units / Year	Cost / Unit	Annual Cost
<b>5. Leachate Collection/Treatment Systems Maintenance</b>				
<u>Maintenance</u>				
Collection Pipes	LF	1	\$500.00	\$500.00
Sumps, Traps	EA	_____	_____	_____
Lift Stations	EA	_____	_____	_____
Cleaning	LS	1	\$1,500.00	\$1,500.00
Tanks	EA	_____	_____	_____



Description	Unit	Number of Units / Year	Cost / Unit	Annual Cost
<b>5. (continued)</b>				
<u>Impoundments</u>				
Liner Repair	SY	<u>30</u>	<u>\$10.00</u>	<u>\$300.00</u>
Sludge Removal	CY	<u>          </u>	<u>          </u>	<u>          </u>
<u>Aeration Systems</u>				
Floating Aerators	EA	<u>          </u>	<u>          </u>	<u>          </u>
Spray Aerators	EA	<u>          </u>	<u>          </u>	<u>          </u>
<u>Disposal</u>				
Off-site (Includes transportation and disposal)	1000 gallon	<u>1,186</u>	<u>\$31.00</u>	<u>\$36,766.00</u>
Subtotal Leachate Collection / Treatment Systems Maintenance:				<u>\$39,066.00</u>
<b>6. Groundwater Monitoring Well Maintenance</b>				
Monitoring Wells	LF	<u>1</u>	<u>\$500.00</u>	<u>\$500.00</u>
Replacement	EA	<u>          </u>	<u>          </u>	<u>          </u>
Abandonment	EA	<u>          </u>	<u>          </u>	<u>          </u>
Subtotal Groundwater Monitoring Well Maintenance:				<u>\$500.00</u>
<b>7. Gas System Maintenance</b>				
Piping, Vents	LF	<u>1</u>	<u>\$5,000.00</u>	<u>\$5,000.00</u>
Blowers	EA	<u>1</u>	<u>\$1,200.00</u>	<u>\$1,200.00</u>
Flaring Units	EA	<u>1</u>	<u>\$400.00</u>	<u>\$400.00</u>
Meters, Valves	EA	<u>1</u>	<u>\$500.00</u>	<u>\$500.00</u>
Compressors	EA	<u>          </u>	<u>          </u>	<u>          </u>
Flame Arrestors	EA	<u>1</u>	<u>\$1,200.00</u>	<u>\$1,200.00</u>
Operation	LS	<u>1</u>	<u>\$24,840.00</u>	<u>\$24,840.00</u>
Subtotal Gas System Maintenance:				<u>\$33,140.00</u>
<b>8. Landscape Maintenance</b>				
Mowing	AC	<u>81.58</u>	<u>\$120.20</u>	<u>\$9,805.92</u>
Fertilizer	AC	<u>          </u>	<u>          </u>	<u>          </u>
Subtotal Landscape Maintenance:				<u>\$9,805.92</u>
<b>9. Erosion Control and Cover Maintenance</b>				
Sodding	SY	<u>8,495</u>	<u>\$3.03</u>	<u>\$25,739.85</u>
Regrading	AC	<u>          </u>	<u>          </u>	<u>          </u>
Liner Repair	SY	<u>1,416</u>	<u>\$10.00</u>	<u>\$14,160.00</u>
Clay	CY	<u>944</u>	<u>\$4.88</u>	<u>\$4,606.72</u>
Subtotal Erosion Control and Cover Maintenance:				<u>\$44,506.57</u>
<b>10. Storm Water Management System Maintenance</b>				
Conveyance Maintenance	LS	<u>1</u>	<u>\$5,000.00</u>	<u>\$5,000.00</u>
Subtotal Storm Water Management System Maintenance:				<u>\$5,000.00</u>
<b>11. Security System Maintenance</b>				
Fences	LS	<u>1</u>	<u>\$500.00</u>	<u>\$500.00</u>
Gate(s)	EA	<u>          </u>	<u>          </u>	<u>          </u>
Sign(s)	EA	<u>          </u>	<u>          </u>	<u>          </u>
Subtotal Security System Maintenance:				<u>\$500.00</u>

Description	Unit	Number of Units / Year	Cost / Unit	Annual Cost
<b>12. Utilities</b>	LS	<u>1</u>	<u>\$1,800.00</u>	<u>\$1,800.00</u>
			Subtotal Utilities:	<u>\$1,800.00</u>
<b>13. Leachate Collection/Treatment Systems Operation</b>				
<u>Operation</u>				
P.E. Supervisor	HR	<u>          </u>	<u>          </u>	<u>          </u>
On-Site Engineer	HR	<u>          </u>	<u>          </u>	<u>          </u>
Office Engineer	HR	<u>          </u>	<u>          </u>	<u>          </u>
OnSite Technician	HR	<u>104</u>	<u>\$65.00</u>	<u>\$6,760.00</u>
Materials	LS	<u>1</u>	<u>          </u>	<u>          </u>
			Subtotal Leachate Collection/Treatment Systems Operation:	<u>\$6,760.00</u>
<b>14. Administrative</b>				
P.E. Supervisor	HR	<u>30</u>	<u>\$135.00</u>	<u>\$4,050.00</u>
On-Site Engineer	HR	<u>48</u>	<u>\$75.00</u>	<u>\$3,600.00</u>
Office Engineer	HR	<u>60</u>	<u>\$75.00</u>	<u>\$4,500.00</u>
OnSite Technician	HR	<u>          </u>	<u>          </u>	<u>          </u>
Other <u>                          </u>	HR	<u>30</u>	<u>\$35.00</u>	<u>\$1,050.00</u>
<u>Administrative Assistant</u>			Subtotal Administrative:	<u>\$13,200.00</u>
			<b>Subtotal of 1-14 Above:</b>	<u>\$168,802.59</u>
<b>15. Contingency</b>	<u>10</u>	% of Subtotal of 1-14 Above		<u>\$16,880.26</u>
			Subtotal Contingency:	<u>\$16,880.26</u>

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

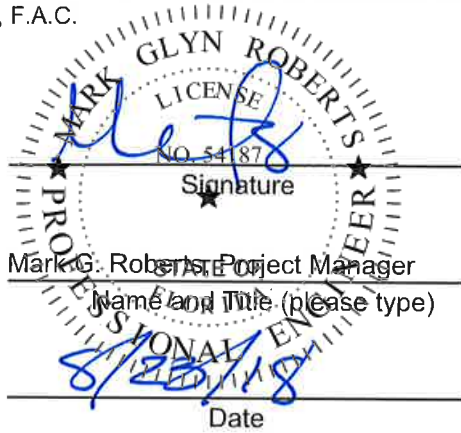
**ANNUAL LONG-TERM CARE COST (\$ / YEAR):** \$185,682.84

Number of Years of Long-Term Care: 30

**TOTAL LONG-TERM CARE COST (\$):** \$5,570,485.34

**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.

  
Signature  
Mark G. Roberts, Project Manager  
Name and Title (please type)  
8/25/18  
Date

200 W. Forsyth St., Ste. 800  
Mailing Address  
Jacksonville, FL 32202-4321  
City, State, Zip Code  
Mark.Roberts@hdrinc.com  
E-Mail address (if available)  
(904)-598-8900  
Telephone Number

54187  
Florida Registration Number  
(please affix seal)

**VII. SIGNATURE BY OWNER/OPERATOR**

  
Signature of Applicant

Regina Montgomery, Director  
Name and Title (please type)  
RMontgomery@co.volusia.fl.us  
E-Mail address (if available)

3151 East New York Avenue  
Mailing Address  
DeLand, FL 32724  
City, State, Zip Code  
(386)-943-7889  
Telephone Number