Financial Assurance Estimate 2013

City of Albany Rapp Road Solid Waste Management Facility

CHA Project Number: 27800.1000.32000

Prepared for:
The City of Albany, New York

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February 3, 2014

The financial assurance closure cost estimate is presented in two parts. The first part is the closure cost associated with closing the existing active area which is regulated under the current operating permit. The second part is for the cost of monitoring and maintenance associated with the existing landfill regulated under the current operating permit over the 30 year post-closure monitoring period. Each of these costs is presented, as follows.

The existing landfill area of the Rapp Road Solid Waste Management Facility which is regulated under the current operating permit total approximately 57 acres. Of the approximately 57 acres, approximately 13 acres have been closed with final cover in accordance with the current operating permit and 6 NYCRR Part 360, therefore approximately 44 acres is remaining to be closed. The remaining area to be closed will be performed in accordance with the current operating permit and 6 NYCRR Part 360. The cost for completing the closure construction is estimated to be $8,257,594.62. This cost assumes that the entire closure will be completed by a contractor hired by the City. Reference Table 1 for a summary of the closure cost estimate.

The post-closure environmental monitoring costs over the 30 year post-closure period for the existing landfill regulated under the current operating permit were estimated considering the monitoring requirements set forth in the current Environmental Monitoring Plan appended to the current Hydrogeologic Report. Post-closure maintenance costs were estimated for tasks typical for closed municipal landfills, including gas and leachate collection systems operation and maintenance, leachate treatment, cover soils repairs, and mowing. The total cost associated with monitoring and maintenance over the 30 year period is estimated to be $3,534,000.00. Table 2 provides a summary of post-closure monitoring and maintenance costs.

In summary, the total cost associated with closure construction and post-closure monitoring and maintenance to be used for establishing financial assurance documents for the existing landfill area of the Rapp Road Solid Waste Management Facility which is regulated under the current operating permit is $11,791,594.62. This figure includes a 20% contingency as required by the current operating permit.

At the time this report was prepared the Rapp Road Solid Waste Management Facility had a remaining permitted capacity of 2,087,523 cubic yards and an estimated site life to April 2021 based on a disposal rate of 1,250 tons per day.

TABLE 1

Rapp Road Solid Waste Management Facility
Active Landfill Closure Cost Estimate (44 acres)
February 3, 2014

Item	Unit Price		Quantity		Cost
Mobilization/Demobilization	$64,887.59	l.s	100	%	$64,887.59
Health & Safety Plan	$2,000.00	l.s	100	%	$2,000.00
Non-Woven Geotextile	$0.10	/s.f.	30,000	s.f.	$3,000.00
Cushion Soil Layer	$10.00	/c.y.	70,987	c.y.	$709,866.67
40 Mil Textured LLDPE	$0.50	/s.f.	1,916,640	s.f.	$958,320.00
Composite Drainage Netting	$0.60	/s.f.	1,437,480	s.f.	$862,488.00
Barrier Protection Fill	$10.00	/c.y.	141,973	c.y.	$1,419,733.33
Topsoil	$11.50	/c.y.	35,493	c.y.	$408,173.33
Establish Vegetation	$1,000.00	/ac.	44.00	ac.	$44,000.00
Soil Barrier Layer	$12.00	/c.y.	141,973.33	c.y.	$1,703,680.00
Stormwater Controls	$44,000.00	l.s	100	%	$44,000.00
Fine Stone Fill	$10.00	/l.f.	2,500	l.f.	$25,000.00
Crusher Run	$15.00	/c.y.	1,400	c.y.	$21,000.00
Silt Fence	$2.00	/l.f.	2,500	l.f.	$5,000.00
Mulching Blanket	$0.12	/s.f.	1,437,480	s.f.	$172,497.60
Site Grading	$110,000.00	l.s	100	%	$110,000.00
Subtotal:					**$6,553,646.52**
Construction Observation	$262,145.86	l.s	100.00	%	$262,145.86
Construction Administration	$131,072.93	l.s	100.00	%	$131,072.93
20 % Const. Contingency	$1,310,729.30	l.s	100.00	%	$1,310,729.30
Total Cost:					**$8,257,594.62**

Notes:
1. Estimate in 2013 dollars.
2. Estimate based on P-4 cell area that has not be closed, to date 13 acres has been closed.

TABLE 2

Rapp Road Solid Waste Management Facility
Post-Closure Monitoring & Maintenance Cost Estimate

February 3, 2014

Item	Unit Price	Quantity	Cost
Environmental Monitoring			
Quarterly Monitoring	$81,500.00 /yr.	30.00 yrs.	$2,445,000.00
Landfill Inspections			
Quarterly Inspections	$5,500.00 /yr.	5.00 yrs.	$27,500.00
Semi-Annual Inspections	$3,000.00 /yr.	25.00 yrs.	$75,000.00
Site Maintenance			
Cover System Mowing	$2,250.00 /yr.	0.00 yrs.	$0.00
Erosion Repairs/Re-seeding	$2,250.00 /yr.	30.00 yrs.	$67,500.00
Gas/Leachate Systems O&M	$11,000.00 /yr.	30.00 yrs.	$330,000.00
Subtotal:			**$2,945,000.00**
20 % Const. Contingency	$589,000.00 l.s	100.00 %	$589,000.00
Total Cost:			**$3,534,000.00**

Notes:
1. Estimates in all categories include reporting.
2. Cover system mowing will not be required since site will be restored to native habitat.