2025 Worksheet for Calculating Closure and Post-closure Cost Estimates

All site data necessary to calculate estimates of closure and post-closure costs can be gathered by completing Table E.1. Data from Table E.1 should be inserted into Tables E.2 and F.1 to complete calculations.

Table E.1: Site Data

Facility Name:

Permit Number:

Description	Quantity	Units
Total Permitted Area		acres
Active Portion		
Composite Lined		acres
Soil Lined		acres
Area of Largest Cell/Phase Requiring Final Cap		
Composite Lined		acres
Soil Lined		acres
Perimeter Fencing		linear feet
Groundwater Monitoring Wells		VLF
Methane Gas Probes	N/A	VLF
Terraces		linear feet
Letdown channels		linear feet
Perimeter drainage ditches		linear feet
Average Daily Flow		tons/day

VLF = Vertical linear feet. The sum of the depths of all monitoring wells.

Table E.2: Closure Cost Estimate

Facility Name:

Permit Number:

	Task/Service	Quantity	Units	Multiplier[a]	Unit Cost[b]	Subtotal
1	**Preliminary Site Work**					
1.1	Conduct Site Evaluation	1	Lump sum	1	$4,481.54	$4,481.54
1.2	Dispose Final Wastes					
	Average Daily Flow[c]	[c]	tons/day			
	Disposal Cost[d, e]	[d]	tons/day	5 days waste	[e]	
1.3	Remove Temporary Building(s)	1	lump sum	1	$4,109.60	$4,109.60
1.4	Remove Equipment	1	lump sum	1	$3,354.63	$3,354.63
1.5	Repair/Replace Perimeter Fencing		linear feet	0.25 (25% of fencing)	$4.39	

1.6	Clean Leachate Line(s)	1	lump sum	1	$2,029.82	$2,029.82
2	**Monitoring Equipment**					
2.1	Rework/Replace Monitoring Well(s)		VLF	0.25 (25% of wells)	$94.23	
2.2	Plug Abandoned Monitoring Well(s)		VLF	0.25 (25% of wells)	$37.72	
2.3	Rework/Replace Methane Probe(s)		VLF	0.25 (25% of probes)	$81.39	N/A
2.4	Plug Abandoned Methane Probe(s)		VLF	0.25 (25% of probes)	$29.74	N/A
2.5	Rework/Replace Remediation and/or Gas Control Equipment [f]	1	lump sum	0.05 (5% of equipment capital cost)	[f]	
3	**Construction**					
3.1	Complete Site Grading to include on- and off-site borrow areas		acres	1	$1,776.82	
3.2	Construct Final Cap					
	Compacted On-site Clay Cap or		cubic yards	1	$6.38	
	Compacted Off-site Clay Cap or		cubic yards	1	$10.37	
	Install Geosynthetic Clay Liner Cap		square feet	1	$0.67	
3.3	Construct Landfill Gas Venting Layer					
	Place Sand or		acres	1	$47,510.30	N/A
	Install Net and Geotextile		square feet	1	$0.47	N/A
3.4	Install Passive Landfill Gas Vents		acres	1	$1,138.17	N/A
3.5	Install Flexible Membrane Liner		square feet	1	$0.52	N/A
3.6	Drainage Layer					
	Place Sand or		acres	1	$47,510.30	
	Install Net and Geonet		square feet	1	$0.47	
3.7	Place On-site Topsoil		cubic yards	1	$2.74	
	Place Off-site Topsoil		cubic yards	1	$21.96	
3.8	Establish Vegetative Cover, including on- and off-site borrow areas		acres	1	$1,266.29	
4	**Drainage/Erosion Control**					
4.1	Construct Terraces		linear feet	1	$11.50	

4.2	Construct Letdown Channels		linear feet	1	$125.78	
4.3	Clean Perimeter Drainage Ditches		linear feet	0.5 (50% of ditches)	$8.77	
5	**Tasks Not Identified**					
6	**Subtotal**					
7	**Administrative Services** [g]	1	lump sum	0.1 (10%)	g	
8	**Technical and Professional Services** [g]	1	lump sum	0.12 (12%)	g	
9	**Closure Contingency** [g]	1	lump sum	0.1 (10%)	g	
10	**Total Final Closure** [h]					h

a Multipliers are determined from the *Solid Waste Financial Assurance Program Report* , December 22, 2000.

b Unit costs include a 2.41% inflationary adjustment for 2025.

c New facilities: Insert the value for "W" in OAC 252:517-17-8(2). Existing facilities: Insert reported annual tonnage for the previous year, divided by 312 operating days per year (52 weeks per year x 6 operating days per week).

d Insert number of tons/day from above.

e Insert landfill disposal cost per ton of waste ($/ton).

f Input capital cost for remediation and/or gas control equipment, if installed at the site.

g Input subtotal from line 6.

h Add rows 6 through 9.

Table F.1: Post-Closure Cost Estimate

Facility Name:

Permit Number:

	Task/Service	Quantity	Units	Multiplier[a]	Unit Cost[b]	Subtotal
1	**Site Maintenance**					
1.1	Site Inspections	4	per year	30 yrs	$815.25	$97,830.00
1.2	General Maintenance	1	per year	30 yrs	$2,444.15	$73,324.50
1.3	Remediation and/or Gas Control Equipment [c, d]	1	lump sum	0.3 [c]	[d]	
2	**Monitoring Equipment**					
2.1	Rework/Replace Monitoring Well(s)		VLF	0.25 (25% of wells)	$94.23	
2.2	Plug Abandoned Monitoring Well(s)		VLF	0.25 (25% of wells)	$37.72	
2.3	Final Plugging of Monitoring Wells		VLF	1	$37.72	
2.4	Rework/Replace Methane Probe(s)		VLF	0.25 (25% of probes)	$81.39	N/A
2.5	Plug Abandoned Methane Probe(s)		VLF	0.25 (25% of probes)	$29.74	N/A
2.6	Final Plugging of Methane Probes		VLF	1	$29.74	N/A
2.7	Final Plugging of Piezometer(s)		VLF	1	$29.74	
3	**Sampling and Analysis**					
3.1	Groundwater Monitoring Wells [e]		wells	60 (2/yrX30yrs)	$879.07	
3.2	Methane Gas Probes		probes	60 (2/yrX30yrs)	$57.05	N/A
3.3	Surface Water Monitoring Points		points	60 (2/yrX30yrs)	$105.93	
3.4	Leachate		samples	60 (2/yrX30yrs)	$170.71	
4	**Final Cover Maintenance**					
4.1	Mow and Fertilize Vegetative Cover		acres	30 yrs	$269.70	
4.2	Repair Erosion, Settlement, and Subsidence for On-site Soils		acres	60 (2CY/acX30yrs)	$3.91	
	Repair Erosion, Settlement, and Subsidence for Off-site Soils		acres	30 yrs	$23.39	
4.3	Reseed Vegetative Cover		acres	0.2 (20% reseeded over post-closure period)	$1,266.29	

5	**Leachate Management**					
5.1	Clean Leachate Line(s)	1	per year	30 yrs	$2,090.51	$62,715.30
5.2	Maintain Leachate Collection System and Equipment	1	per year	30 yrs	$3,247.69	$97,430.70
5.3	Collect, Treat, Transport, and Dispose of Leachate		gal/yr	30 yrs	$0.41	
6	**Tasks Not Identified**					
7	**Subtotal**					
8	**Administrative Services** [f]	1	lump sum	0.06 (6%)	**f**	
9	**Technical and Professional Services** [f]	1	lump sum	0.07 (7%)	**f**	
10	**Post-closure Contingency** [f]	1	lump sum	0.1 (10%)	**f**	
11	**Total Post-closure** [g]					**g**

a Multipliers are determined from the *Solid Waste Financial Assurance Program Report* , December 22, 2000.

b Unit costs include a 2.41% inflationary adjustment for 2025.

c 5% of equipment capital cost, maintenance performed once per 5 yrs for 30 years (6 x 0.05 = 0.30).

d Input capital cost for remediation and/or gas control equipment, if installed at the site.

e If the approved groundwater monitoring plan requires monitoring for alternative constituents, unit costs shall be calculated in accordance with OAC 252:517-17-51(b) or (c).

f Input subtotal from line 7.

g Add lines 7 through 10.