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Revised September, 2021

Cost Estimate Guidance Document for Municipal Solid Waste Landfills

Cost estimates should be broken down into activities and the costs based on those activities. This is an example of a "detailed cost estimate" consisting of a breakdown of activities into categories, tasks, and unit costs. Please use this for guidance.

Closure Cost Estimate for Municipal Solid Waste Landfill

<ol style="list-style-type: none"> 1. Final Cover <ol style="list-style-type: none"> a) Infiltration Layer <ul style="list-style-type: none"> • Labor (labor category, unit cost, hours) • Materials (unit cost) • Equipment (equipment category, unit cost, hours) • Geotechnical b) Vegetative Layer (Erosion Layer) <ul style="list-style-type: none"> • Labor (labor category, unit cost, hours) • Materials (unit cost) • Equipment (equipment category, unit cost, hours) c) Flexible Membrane Liner <ul style="list-style-type: none"> • Labor (labor category, unit cost, hours) • Materials (unit cost) • Equipment (equipment category, unit cost, hours) d) Filter Fabric (Geomembrane) <ul style="list-style-type: none"> • Labor (labor category, unit cost, hours) • Materials (unit cost) • Equipment (equipment category, unit cost, hours) e) Venting Layer f) Drainage Layer g) Final Grading 	<ol style="list-style-type: none"> 2. Surface Water Control Structures <ol style="list-style-type: none"> a) Labor (labor category, unit cost, hours) b) Materials (unit cost) c) Equipment (equipment category, unit cost, hours) 3. Seeding, Mulching, Fertilizing <ol style="list-style-type: none"> a) Labor (labor category, unit cost, hours) b) Materials (seed unit cost, fertilizer, mulch) c) Equipment (equipment category, unit cost, hours) 4. Gas Venting System <ol style="list-style-type: none"> a) Labor (labor category, unit cost, hours) b) Materials (unit cost) 5. Project and Construction Management, (QA/QC) <ol style="list-style-type: none"> a) Engineering labor (labor category, unit cost, hours) (5% to 15% of total cost) b) Legal and Administrative (labor category, unit cost, hours) (5% of total cost) c) Computer, graphic supplies, reproduction 6. Other direct costs (1% of total cost) <ol style="list-style-type: none"> a) Mobilization b) Per diem c) Lodging 7. Overhead and Profit 8. Contingencies (10%)
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Post-Closure Cost Estimate for Municipal Solid Waste Landfills

<ol style="list-style-type: none"> 1. Groundwater Monitoring <ol style="list-style-type: none"> a) Labor (labor category, unit cost, hours) b) Analytical c) Data Assessment d) Equipment category, unit cost, hours) e) Well Replacement Costs (25-to-30-year life) 2. Leachate Sampling and Analysis <ol style="list-style-type: none"> a) Labor (labor category, unit cost, hours) b) Analytical 3. Gas Monitoring <ol style="list-style-type: none"> a) Labor, (labor category, unit costs, hours) b) Analytical c) Equipment (equipment category, unit costs, hours) d) Replacement and Repair costs (unit costs) 4. Leachate System Management <ol style="list-style-type: none"> a) Labor (labor category, unit costs, hours) b) Equipment (equipment category, unit costs, hours) c) Transportation (equipment category, unit costs, hours) d) Maintenance & Inspections (labor category, unit costs, hours) e) Disposal Cost (unit cost) f) Pump Replacement Costs (10-to-15-year pump life) 5. Site Inspections <ol style="list-style-type: none"> a) Labor (labor category, unit costs, hours) 6. Final Cover Repair (Add 1 ft. of cover over 5% of area/year) <ol style="list-style-type: none"> a) Labor (labor category, unit cost, hours) b) Materials (unit cost, transportation) c) Equipment (equipment, category, unit costs, hours) 	<ol style="list-style-type: none"> 7. Seeding Repair (10% of landfill/year) <ol style="list-style-type: none"> a) Labor (labor category, unit cost, hours) b) Materials (unit cost) c) Equipment (equipment category, unit cost, hours) 8. Mowing <ol style="list-style-type: none"> a) Labor (labor category, unit cost, hours) b) Equipment (equipment category, unit cost, hours) 9. Rodent, Weed & Tree Control <ol style="list-style-type: none"> a) Labor (labor category, unit cost, hours) b) Materials (unit cost) c) Equipment (equipment category, unit cost, hours) 10. Maintenance Repair or Replacement of Fence and Gate <ol style="list-style-type: none"> a) Labor (labor category, unit cost, hours) b) Materials (unit cost) 11. Surface Water Control Structure Maintenance <ol style="list-style-type: none"> a) Labor (labor category, unit cost, hours) b) Equipment (equipment category, unit cost, hours) 12. Record keeping and Administration <ol style="list-style-type: none"> a) Labor (labor category, unit cost, hours) b) Computer, graphic supplies, reproduction 13. Other direct costs <ol style="list-style-type: none"> a) Mobilization b) Per Diem c) Lodging 14. Overhead and Profit 15. Contingencies (10% of annual total)
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