



Monrovia, located on the Atlantic Coast at Cape Mesurado, is the capital city of the West African country of Liberia. It is Liberia's largest city and its administrative, commercial, and financial centre. About one third of the population of Liberia live in Monrovia.*

Monrovia City Corporation (MCC) is responsible for solid waste management (SWM). MCC is responsible for enacting SWM policies and regulations as well as supervision and technical oversight. The collection and disposal of solid waste is carried out by community-based enterprises (CBEs) and private operators. CBEs operate under franchise agreements with MCC to collect waste from households in densely populated areas and dispose of the waste in containers at communal collection points. CBEs collect fees from their customers and pay an annual fee to MCC. Private operators, also operating under franchise agreements with MCC, collect waste from the central business district, small businesses, and schools. The city has two transfer stations and two final disposal sites. One of the final disposal site is an open dumpsite, and the other is an engineered sanitary landfill, located 15 kilometres from the city centre and with the following features: bottom liner, leachate collection pipe, weighbridge, tyre washer, gate and fence.

Sources: * Wikipedia, Monrovia, accessed 20 August 2018, <<https://en.wikipedia.org/wiki/Monrovia>>

Information

Population*	1.27 million (2015)
Population growth (annual %)*	3.8 (2010-2015)
Area (km ²)**	194.25
Climate**	Tropical monsoon climate
Main industries**	Administrative, commercial, financial
Currency***	USD 1: LRD 154.25 (Liberian dollar) (August 2018)

Source: * United Nations, Department of Economic and Social Affairs, Population Division (2018). World Urbanization Prospects: The 2018 Revision, Online Edition.

** Wikipedia, Monrovia, accessed 20 August 2018, <<https://en.wikipedia.org/wiki/Monrovia>>

*** Cuex.com

Current SWM Situation

Item	Outline
Institutional System	
Legal system	<ul style="list-style-type: none"> ● Environmental Protection Agency Act. ● Environmental Protection and Management Law.
Policy/Plan	<ul style="list-style-type: none"> ● Solid Waste Management Plan.
Implementation system	<ul style="list-style-type: none"> ● Monrovia City Corporation is responsible for SWM. ● Community-based enterprises collect waste from high density areas. ● Private operators collect waste from the central business district, small businesses and schools. ● Other institutions involved in SWM include: <ul style="list-style-type: none"> » Ministry of Public Works: helps with the cleaning of waterways and alleys, road infrastructure, city management planning, and supports the city in developing ordinances and regulations. » The Environmental Protection Agency: responsible for enforcing environmental laws and regulations and liaising with the City Corporation in developing city plans. » Liberia Water and Sewerage Agency: responsible for ensuring adequate supply of clean water to all Liberians and supporting the City Corporation in developing city plans to ensure waterways are protected. » The Ministry of Health: responsible for integrating disease programs into the Solid Waste Management Plan. » The Ministry of Justice: supporting the prosecution of violators of solid waste management regulations.
Technical System	
Waste generation amount & characteristics	<ul style="list-style-type: none"> ● The city generates 756 tons of waste per day at the rate of 0.65 kg/person/day. ● The waste composition is as follows: <ul style="list-style-type: none"> » Food waste 43%, plastic 13%, paper 10%, textile 6%, wood 4.6%, rubber and leather 0.2%, metal 2%, glass 0.6%, ceramics 0.6%, other items (clothes, mixed) 20%.
Storage and discharge/ Collection and transportation/ Road sweeping	<ul style="list-style-type: none"> ● About 325 tons/day is collected. ● There are two transfer stations. ● The City Corporation uses seven compactor trucks, two flatbed trucks with a capacity of 10 m³, and five container trucks.
Intermediate treatment/ Recycling	<ul style="list-style-type: none"> ● There is no recycling/treatment facility.

Item	Outline
Final disposal	<ul style="list-style-type: none"> ● There are two final disposal sites. The first one is an open dumpsite and the second one is an engineered sanitary landfill, 15 kilometres from the city centre. ● The sanitary landfill has following features: bottom liner, leachate collection pipe, tyre washer, gate, fence, and drainage to prevent rainwater from getting to the waste disposal area. ● The waste at the sanitary landfill is covered with soil immediately/or within a week.
Financial system	<ul style="list-style-type: none"> ● The city charges a fee for waste services. For commercial waste, the charge is USD 15 per ton. ● At the disposal site, there is a tipping fee of USD 10 per ton.
Environmental and social considerations	<ul style="list-style-type: none"> ● Community members are informed about waste collection days and time, separation of waste, and punitive measures for violators of regulations. ● Information is passed through public bulletins, public consultation meeting, flyers and/or brochures, radio, TV and through schools (in curriculum).
Donor support	<ul style="list-style-type: none"> ● Irish Aid, JICA, United Nations Development Programme (UNDP), United States Agency for International Development (USAID), World Bank, Australian Aid (formerly AusAID).
Areas for improvement (in order of priority)	<ul style="list-style-type: none"> ● Institutional issues. ● Technical issues. ● Financial issues.

Waste Amount at Each Stage of Waste Flow*

Waste flow	Amount ** (ton/day)	Remarks
① Waste generation	756	Waste generated at houses, offices, shops, restaurants, etc.
② Discharge to collection	N/A	Waste discharged for collection services.
③ Self disposal	N/A	Disposal at generation sources, such as burning and burying.
④ Recycling at source	N/A	Reuse of materials, composting, to recyclers.
⑤ Collection and transport	325	Waste amount collected and transported.
⑥ Clandestine dumping	N/A	Waste illegally disposed of at somewhere.
⑦ Treatment	120	Material recycle, composting, incineration, etc.
⑧ Recycling/Reduction	80	Recycled and/or reduced waste amount by material recycle, composting, incineration, etc.
⑨ Residue	40	Residue from treatment facilities.
⑩ Final disposal site	N/A	Waste amount brought into disposal sites.
⑪ Recycling	N/A	Recycled at disposal sites.
⑫ Final disposal	205	Waste amount finally disposed of at disposal sites.

* Based on the waste flow chart on page.

** Figures include estimated value.

Location of Waste Management Facility and Related Photographs:



Community-Based Enterprise



Small-Medium Enterprise



Solid waste compressor



Temporary collection



Transport to landfill



Landfill