

# Facts About Landfills

August 2023

## WHAT IS A LANDFILL?

A landfill is a site for the disposal of trash and other waste material by burying it and covering it over with soil. It is the oldest and most common way to dispose of waste.

## WHAT GASES ARE IN LANDFILLS?

Landfill gases are naturally produced when bacteria break down organic waste (e.g., food, yard trimming, and paper). Methane and carbon dioxide make up 90 to 98% of landfill gas. The remaining 2 to 10% includes nitrogen, oxygen, ammonia, sulfides, hydrogen, and various other gases. The amount of these gases depends on the type of waste present in the landfill, the age of the landfill, oxygen content, the amount of moisture, and temperature. Though production of these gases generally reaches a peak in five to seven years, a landfill can continue to produce gases for more than 50 years.

Ammonia and hydrogen sulfide create most of the odors at landfills. Dimethyl sulfide also has a disagreeable, cabbage-like odor. Ammonia is a colorless highly irritating gas with a sharp, foul odor. Hydrogen sulfide is a colorless gas with a strong odor of rotten eggs. Some people can



smell ammonia and hydrogen sulfide at very low levels in the air, generally below levels that would cause health effects.

Methane, hydrogen, and carbon dioxide are colorless, odorless gases. At high levels, methane and carbon dioxide can displace oxygen in a closed space. Methane is highly flammable and can reach explosive levels when accumulated in an enclosed space with poor ventilation.



Gas-to-Energy Facility at the Chiquita Canyon Landfill

Landfills are required to install gas collection and control measures to reduce health and environmental impacts from landfill gases. Active landfills are permitted by state and local regulatory agencies such as local enforcement agencies (LEA), South Coast Air Quality Management District (SCAQMD), Regional Water Quality Control Board (RWQCB), and County or City Planning Department. They are required to comply with applicable regulations to protect public health and the environment. When landfills do not follow regulations, they can harm the environment by releasing harmful gases into the air and soil and exposing residents to health risks.



## HEALTH EFFECTS

Living or working near landfills may increase your risk of being exposed to gases like sulfides, ammonia, methane, and carbon dioxide. Health issues people experience depend on the level of contact and the amount of the pollutants. Landfill gases can cause short-term health effects, like:

- Coughing
- Irritation of the eyes, nose, and throat
- Headaches
- Nausea
- Difficulty breathing

Breathing air polluted with landfill gases may be more harmful to some people. For example, those who:

- Have existing health issues such as asthma, chronic obstructive pulmonary disease (COPD), heart disease, and respiratory diseases.
- Live near freeways, roads, and industrial sites that release harmful chemicals that pollute the air, land, and water.
- Work or exercise outside.
- Have added challenges like a lower income, live in communities with fewer resources, have experienced racism, trauma, and mental health issues.

Odors near a landfill may be a nuisance that may cause health effects. If you are having health symptoms due to air quality, speak with your doctor to let them know your concerns. If you don't have a doctor, call [1-844-744-6452](tel:1-844-744-6452) Monday-Friday between 7:30 AM and 5:30 PM to find a clinic near you; or visit [www.dhs.lacounty.gov/mhla](http://www.dhs.lacounty.gov/mhla).



## WHAT CAN I DO TO PROTECT MYSELF?

- Take steps to minimize landfill gases in your indoor space. Air out your home when odors are not present by temporarily opening windows and doors.
- Use a portable indoor air filter such as a High Efficiency Particulate Air (HEPA) cleaner with a carbon (or activated carbon) filter to improve air quality in your home. For more information on certified air filters, check EPA's Air Cleaners and Air Filters webpage, <https://www.epa.gov/indoor-air-quality-iaq/air-cleaners-and-air-filters-home>.
- Contact your doctor if you are experiencing health symptoms.
- Report the odors.

## WHERE DO I REPORT BAD OUTDOOR ODORS?

Environmental issues are managed by different regulatory agencies with different roles and responsibilities. The South Coast Air Quality Management District (SCAQMD) is responsible for regulating outdoor air quality in Los Angeles County. They offer different ways to report an issue:

- Call [1-800-CUT-SMOG \(1-800-288-7664\)](tel:1-800-CUT-SMOG)
- Email: [cut\\_smog@aqmd.gov](mailto:cut_smog@aqmd.gov)
- Submit a complaint online: <https://www.aqmd.gov/home/air-quality/complaints>

