

HEALTH RISKS NEAR LANDFILLS

City of Cape Town landfill sites are regulated by the provincial Department of Environmental Affairs and Development Planning (DEADP). For the City to operate landfills legally, we must obey strict rules that protect the health of the environment and surrounding communities.

One of these rules is to maintain a buffer zone around the landfill site where no development is allowed. This is because of potentially harmful gases that come from landfills. Once in the air, the landfill gases can be carried to surrounding areas with the wind.



EXPLOSION HAZARDS

Landfill gas may form an explosive mixture when it combines with air in the right amounts. If there are closed structures in the buffer zone of a landfill, explosive gases may collect there and explode. Methane is the part of landfill gas that is most likely to cause an explosion. When inside the landfill, concentrations of methane are above potentially explosive levels, but as methane drifts away from the landfill and becomes diluted it may reach explosive levels.



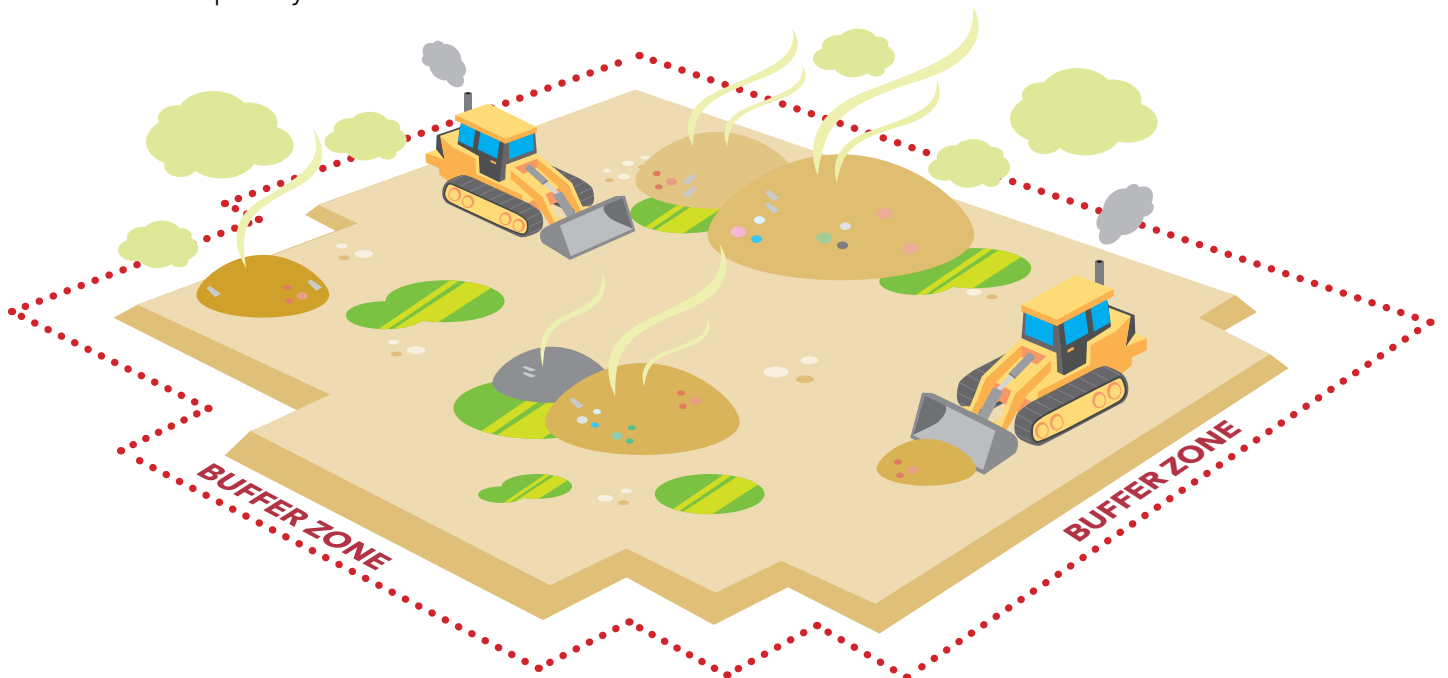
ASPHYXIATION (SUFFOCATION) RISK

Landfill gas can cause suffocation if it collects in an enclosed space. It can displace existing air so there is not enough oxygen for breathing. Any of the gases that come from landfill can cause suffocation in the right conditions.



OTHER HEALTH RISKS

Fumes from organic waste decomposing in landfill are a mixture of many different gases that may damage people's health if inhaled in sufficient amounts, or for long enough. One of the more common risks is hydrogen sulphide (also known as sewer gas) - known to be present in landfill gas. The possible health impacts of exposure depend on how much a person breathes and for how long. Possible effects range from headaches or burning eyes to unconsciousness and death. People could be exposed to this gas repeatedly within the buffer zone of a landfill. There is also a health risk due to possible reactions between hazardous chemicals that may have been improperly/illegally disposed in landfills, especially industrial waste.



CONCLUSION

The health effects of living near landfill can be variable. In addition to the risks explained above, there could be others that are not well understood, or have not yet been proven. To prevent any possible damage to health, the regulator (DEADP) requires the City to maintain a buffer zone. If a buffer zone is not maintained, the licence for waste management on the site can be revoked with drastic consequences for society as a whole.



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