# Article information:

垃圾填埋场采矿活动的健康和环境影响评估：英国诺福克的案例研究 - ScienceDirect
<https://www.sciencedirect.com/science/article/pii/S2405844022028821>

# Article summary:

1. Landfill mining (LFM) activities can release potentially harmful particulate emissions into the environment, posing a human health risk.

2. Fine particles excavated during LFM from municipal solid waste (MSW) landfill sites in Norfolk, UK contained high concentrations of heavy metals such as Zn, Cu, Pb, Cd, As, and Cr that exceeded permissible limits set by current UK Soil Guideline Values.

3. The hazard quotient values indicated high exposure-related risks for Pb, Zn, Cd, and As for allotment land use and As for residential land use. The cancer-related risk values were higher than the acceptable range of 1.0 × 10-6 to 1.0 × 10 -4 with Cr and As being the major human health risk hazards.

# Article rating:

Appears moderately imbalanced: The article provides some useful information, but is missing several important points or pieces of evidence that would be required to present the discussed topics in a balanced and reliable way. You are encouraged to seek a more balanced perspective on the presented issues by exploring the provided research topics and looking at different information sources.

# Article analysis:

The article titled "Assessment of Health and Environmental Impacts of Landfill Mining Activities: A Case Study in Norfolk, UK" provides an evaluation of the potential health risks associated with landfill mining activities. The study focuses on the release of potentially harmful particulate emissions into the environment during LFM activities, including excavation, shredding, screening, and equipment handling.

The article presents a detailed analysis of the physical, chemical, and biological characteristics of MSW samples collected from four different wells in a closed landfill site in Norfolk, UK. The results show that fine particles (approximately ≤1.5 mm) accounted for more than 50% of the total mass of excavated waste and contained predominantly soil-like materials. The concentrations of Zn, Cu, Pb, Cd, As, and Cr exceed the permissible limits set by the current UK Soil Guideline Values.

The article highlights potential biases in reporting by not presenting both sides equally. It only focuses on the negative impacts associated with landfill mining activities without discussing any potential benefits such as material and energy recovery or site redevelopment.

The study also lacks evidence to support some claims made regarding cancer-related risk values being higher than acceptable ranges without providing specific data or sources to back up these claims. Additionally, there is no exploration of counterarguments or alternative perspectives on how to mitigate potential health risks associated with LFM activities.

Overall, while this article provides valuable insights into potential health risks associated with landfill mining activities, it could benefit from a more balanced approach that considers both positive and negative impacts and explores alternative solutions to mitigate potential risks.

# Topics for further research:

* Benefits of landfill mining activities
* Material and energy recovery from landfill sites
* Site redevelopment options for closed landfills
* Mitigation strategies for health risks associated with landfill mining
* Alternative perspectives on the impact of landfill mining activities
* Case studies of successful landfill mining projects

# Report location:

<https://www.fullpicture.app/item/9493a20f9a5358227e4acaff445d0a64>