

# **Identifying the variance in the magnitude of landfill impacts on residential property values using multiple regression analysis**

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Master of Applied Science in the Program of Environmental Applied Science and Management  
2003

## **Abstract**

The economic advantage of constructing and operating large-scale landfills over small-scale landfills has been used to justify regional landfills as the solution to the municipal waste management problem. However, the availability of sufficient landfill capacity will have dampening effects on the social efforts to reduce waste and/or divert waste away from landfills, especially when external costs of landfills are not appropriately reflected in the estimation of total costs. In this study, the negative effects of a landfill that are capitalized in property values of houses located in the proximity of two landfill sites (“Britannia” and “Keele” landfill sites representing a small and a large landfill respectively) in the Greater Toronto Area are examined in a single multiple regression equation. The results indicate that the large landfill has greater adverse impacts than the small landfill on property values. This study suggests further analysis in a model to which more independent variables that explain locational characteristics should be added.