Landscape development and performance of landfill after-use

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Intake year: 2014  
Research Track: Building Science, Technology and Sustainability  
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Dissertation Abstract

Rapid urbanization in Hong Kong and Southern China within highly constrained territories has resulted in a dramatic increase in the number of people living close to urban landfills and a sharp rise in concern over the nuisance and potential impact on health of their operation.  Public acceptance of landfills has been shown to be linked both to the efficacy of controls on filling operations and the quality and relevance of the long-term site after use.  To date, the lengthy construction and operation period of landfills has encouraged the planning and design of the after use to the end of the development process.  Once filling and final capping are complete, however, options for after use are severely limited.  This research study found that a large number of potential landfill after uses exist, and that these could be categorized as: ball sports, other sports, passive recreation, and facilities & other uses.  Analysis of the after uses with respect to the minimum area required for each, the maximum slope gradient and tolerance to landfill settlement revealed distinct relationships between these parameters.  This understanding can assist in the selection and design of appropriate after uses, and facilitate acceptance by local residents of the presence of the landfill.