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Editorial

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Welcome to this issue of *Waste and Resource Management*, part of the *Proceedings of the Institution of Civil Engineers*. The journal aims to publish original contributions on research and practice relating to all civil engineering and construction aspects of the resource management cycle, from waste minimisation through the reuse and processing of waste materials to the management and disposal of residual wastes including legislative, standards, socio-economic and sustainability matters.

Sharp-eyed readers may have noticed a new element appearing in the reference details at the start of papers; this is the DOI (digital object identifier). The DOI is a permanent, unique identifier that enables you to cite material published online. An article's DOI will remain the same if the journal's website address or even its publisher changes, making it the easiest option for identifying and locating a specific article on the internet. Whenever citing your *Proceedings* papers, whether the print or online versions, you should always include the DOI as this will allow the reader to access, at the very least, the abstract of your paper. If you type the following URL into the address bar of your web browser <<http://dx.doi.org/>> and then enter the DOI in the dialogue box presented on this web page, you will be taken directly to the abstract of the article.

This issue features four papers. The first, by Srivastava and Nema, describes the development of a neural network technique for predicting quantities of solid waste generated. This is particularly useful in developing countries, where a lack of historical data may make accurate forecasting difficult. The approach adopted involves the use of grey theory to compensate for the lack of data, and the model is demonstrated with reference to the solid waste arisings for Delhi.

The remaining three papers address quite different aspects of the reuse of wastes as construction materials. Li *et al.* discuss the potential groundwater impacts of contaminants leaching from coal combustion products used in highways. A computer model is developed, validated with reference to field data and then used to investigate the effect of changes in key variables such as initial concentration of contaminant, hydraulic conductivity of the ground and the depth to the groundwater level. Poon and Cheung describe the results of a study of the performance of photo-catalytic paving blocks (which remove nitrogen oxides from the surrounding air), made from waste. A particular focus of their paper is the way in which the performance of the blocks decreases over time, and how it compares with similar products made from virgin materials. Finally, the paper by Beaven *et al.* discusses the compressibility of waste tyres and tyre shreds used in the construction of landfill drainage systems, and the effect that compression might have on the porosity and efficacy of such drainage layers.

It is generally recognised that concern over the performance of a product made from reclaimed or recycled materials can be a strong barrier to resource recovery and reuse. It is hoped that these three papers will play a part in overcoming such prejudices, by helping to identify circumstances and applications where the use of wastes in construction will not have an adverse impact on the performance of the product.

As always, written discussion on the papers published in this issue, and original papers falling within the scope of the journal, are welcomed.