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Editorial

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The previous issue of *Waste and Resource Management* focussed on some of the outputs of the Engineering and Physical Sciences Research Council's sustainable urban environments programme waste consortium. We will return to that later in the year, but this issue contains a more usual mix of a briefing and four papers covering a number of different topics.

The briefing by Jones¹ sets out a timely vision and challenge to the waste management community, to move from the historic view of waste as a problem to an holistic approach integrating economic, technological and sociopolitical aspects and viewing waste as a materials and energy resource on a regional basis.

The paper by Harder and Woodard² presents the results of a study carried out to assess the potential for 'green cone' food digesters to reduce the amount of household waste set out for kerbside collection and disposal. The key difference between green cone digestion and composting is that the green cone aims to provide an environment in which accelerated aerobic decomposition of biodegradable wastes takes place, rather than to produce compost. Nutrients from the green cone filter naturally into the underlying soil, and the device provides a disposal route for animal and other wastes not normally composted. The study showed a reduction of about 2 kg per household per week in the amount of residual waste set out for kerbside collection, and about 0.6 kg per household per week in the amount of non-compostable food materials. In contrast to previous work, the reduction in waste set out for kerbside collection was found to be statistically significant.

Fannin *et al.*³ describe trials carried out to investigate the effectiveness of a constructed wetland system populated with *Spartina* and *Juncus* species for the primary treatment of landfill leachate. The trials demonstrated successful treatment (with ammoniacal nitrogen removal rates of 69–99%) of methanogenic leachate from a municipal solid waste. A commissioning period, during which the ammoniacal nitrogen concentration of the influent to the wetlands was gradually increased from a low value, was required – but this is considered to be small in comparison with the anticipated operational lifespan.

The papers by O'Kelly and Quille⁴ and by S'Habou *et al.*⁵ address different aspects of rather specialised but potentially problematic wastes – residues from municipal water treatment and olive mills respectively. O'Kelly and Quille report the results

of a geotechnical investigation into the compressibility and consolidation properties of alum residues from municipal water treatment processes. The quantities of such wastes requiring disposal are increasing, and the paper is set in the context of estimating settlement of the material in lagoons and when used as a fill. It also considers the selection of an appropriate mechanical dewatering system to reduce the water content of the sludge prior to disposal. S'Habou *et al.* discuss the use of a geographic information system to help with the multi-criteria analysis needed to determine suitable locations for disposal sites for large quantities of potentially highly polluting olive mill wastewater in Sfax, the main olive oil producing region of Tunisia.

I hope that many of our readers will feel moved to write with a discussion point on one or more of the papers in this issue, and/or to contribute a paper or technical note of their own. The journal publishes 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. Articles covering relevant legislation, standards, socio-economic and sustainability matters are welcomed.

REFERENCES

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