Editorial

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Honorary Editor and Chair of the Editorial Advisory Panel

Having taken over as Honorary Editor and Chair of the Editorial Advisory Panel in November I would like to begin by thanking my predecessor, Dr Roger Bettess, for the time and wisdom he has given to *Water Management*. Over recent years the journal has become stronger and there is now a steady inflow of papers that mean we can become more selective and ensure an even higher quality of papers. As a *Proceedings* journal of the Institution of Civil Engineers *Water Management* fulfils two purposes for its readership: to showcase practitioner papers and to draw attention to advances in research. Sometimes these can seem to pull in opposite directions and a continuing debate on this is not only inevitable, but also healthy as we strive to present the appropriate balance. Focusing on each aspect means that our readership benefits from knowing what advances are available and also how these are being applied in practice. One feature of the journal is special, themed issues and review papers and we have a number of these in preparation. Any suggestions for future themes and reviews would be gladly received.

With increasing pressure on academics to publish there are greater numbers of papers submitted to journals and the editorial advisory panel must be vigilant to ensure appropriate standards and quality. Our readership should be assured that we will continue to do this through peer review and where appropriate through the use of technological tools.

As Honorary Editor I am keen to hear the views of our readers and would encourage you to contact me directly (n.g.wright@leeds.ac.uk).

This issue presents one briefing and four papers that represent a range of topics. The briefing paper by Adarsh and Sahana (2012) presents the particle swarm optimisation (PSO) approach for a common, but complex optimisation problem in irrigation canals. PSO has the benefit of not requiring calculation of a derivative which is useful for such non-linear and non-convex problems and extends its range of applicability. Interest in this method should extend beyond this particular application and readers should bear this in mind in examining these specific results.

The first paper (Keshavarzi *et al.*, 2012) is an international collaboration on the design of water intakes. It examines how rounding the edges of the intakes can improve efficiency by increasing the effective width of the flow. The carefully conducted tests show how this can be effective and also produce some interesting flow visualisation that combines experimental measurement with computer analysis to draw additional insights.

Another international group of authors presents the second paper which examines scour due to an overfall jet (Ghodsian *et al.*, 2012). Most previous work on this subject has considered a jet of clear water, but in this paper the authors consider the case where the jet carries sediment. Relative to its occurrence in practice this case has been neglected, probably due to its complexity. This well-designed study draws out some interesting details and presents images of the scour that occurs along with quantitative comparisons. From this it concludes that a sediment-carrying jet induces less scouring than a clear water jet and proposes equations to be used in these situations.

The third paper (Vatankhah, 2012) demonstrates how finite differences can be used to determine the drain pipe diameter for field drains. This uses a straightforward method that can be implemented in a spreadsheet without recourse to more complex channel flow software.

The final paper (Lee *et al.*, 2012) differs from the focus of the other papers on engineered systems in considering a natural system that has subsequently been engineered: urban streams. In recent years South Korea has invested heavily in programmes to improve its riverine environments after decades of canalisation. When doing this in an urban stream it is vital not to neglect the question of flooding that motivated the previous hard approaches. This paper presents a method for assessing water volumes for this purpose based on the use of cross-section survey data and validation point data. It demonstrates how this can be done and validates the approach. This may well contain lessons for how we use and combine various sources of data to support river management in urban areas.

I hope you find these papers stimulating and informative. As stated above I would be pleased to receive comments on this issue, on other issues or comments related to the journal more generally.

I wish all our readers a happy and successful New Year.

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