Editorial

Steve Mitchell PhD CEng FICE
School of Civil Engineering and Surveying, University of Portsmouth,
Portsmouth, UK

As I write this Editorial, it is clear that flooding and flood risk management is high on the agendas of civil engineers and policymakers alike following the tragic events over the Christmas period in the north of England, and more recently in Scotland, both in terms of the extent and duration of the flooding and the measures put in place to protect communities and businesses. Water management in its broadest sense is clearly ‘on the radar’ for many, and must remain so over the coming months regardless of what the weather throws at us. It is clearly our responsibility to continue to debate and inform researchers and practitioners on the latest research on the safe management of high flows, and the present issue of *Water Management* provides a number of different strands that will be of interest to readers in this regard.

The issue of the resilience of infrastructure is clearly relevant in the light of our ever-changing understanding of the impacts of climate change and the uncertainties involved in predicting rainfall patterns. Birgani and Yazdandoost (2016) use a hierarchical fuzzy logic scheme to assess options for providing resilience against flooding in urban infrastructure, using Tehran (Iran) as a case study. I recommend readers refer to the excellent discussion of what we might mean by the term ‘resilience’ as a basis for considerations of flood risk management in other parts of the world, including the UK. The conclusions of this paper serve as a timely reminder of the need to consider technical and nontechnical considerations when assessing the suitability of an urban drainage system.

Less relevant to urban drainage perhaps, but still pertinent to flooding, this time in natural channels, is the next paper by Liu *et al.* (2016), who build on existing models of meandering compound channels to produce an assessment of flow patterns and methods of predicting the stage–discharge relationship in channels of this kind. Particularly impressive here is the scale of the physical model used, a photograph is provided to help readers visualize the experiments undertaken. This paper also provides a useful summary of the existing work to date, to which readers could refer in order to understand the state of the art in this area. Understanding the effect of meanders is clearly key to assessing the behaviour of natural systems in respect of overbank flow regimes.

Dursun and Ozturk (2016) then describe a set of interesting numerical experiments on flows over spillways in which they consider a range of different spillway slopes and other conditions. They make good use of a range of existing laboratory data and the results from their computational fluid dynamic

model are clearly encouraging given the importance of effective spillway design for reservoirs under high flow conditions, and the need to dissipate energy as efficiently as possible. These results, and the graphical representations of the flows, are an excellent example of how model output can be used to better understand the key hydraulic processes occurring in a real structure in ways that may not be possible using even large-scale physical models.

In the final paper in this issue, Zhou *et al.* (2016) describe some laboratory experiments related to scour in sewers. Their results clearly show the importance of a good understanding of the effects of biological processes on the physical properties of sediments. In particular, one of the main parameters considered relates to whether the sediments contained in sewers are behaving aerobically or anaerobically, and their volatile solids component. Again, the reader is referred to the background information on this topic in a systematic way through a brief review of the existing knowledge and understanding of this topic provided by the authors. The authors illustrate an example of where a multidisciplinary approach has been used to answer their research questions.

The journal continues to attract readership in a number of different countries and on a number of different topics related to water engineering, and also continues to place emphasis on providing a forum for researchers and practitioners alike, pitching at the all-important interface between applied research and real engineering issues. Readers may be interested in a themed issue of *Water Management* to be published soon, on the topic of flood resilience, tackling some other aspects of this important topic. Articles in future issues may also be viewed ahead of print on the ICE Virtual Library homepage (www.icevirtuallibrary.com/wama), which also contains a search facility for readers interested in specific topics from past issues. As always, interested readers are also encouraged to contribute short discussion pieces on any of these articles, or submit papers for consideration in future issues. Further information is available via the ICE Virtual Library.

It only remains for me to wish all readers a happy and successful 2016.

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