IAHR/IWA Joint Specialist Group on URBAN DRAINAGE

Newsletter No. 30 March 2017

For updated information, please regularly visit our website at:
http://www.iwa-network.org/specialist_groups.php and
http://www.jcud.org

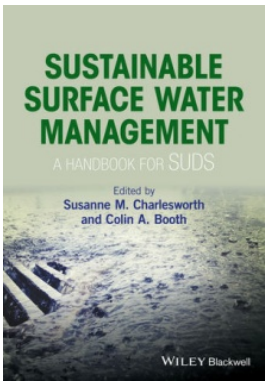
CONTENTS

Prepared by the IWA Urban Drainage Specialist Group

IWA is a registered charity (England) No. 1076690 at Alliance House, 12 Caxton Street, London SW1H 0QS, UK.
Tel: +44 (0)207 654 5500; Fax: +44 (0)207 654 5555; E-mail: water@IWAhq.org.uk;
Web: http://www.IWA-network.org

IAHR is at Paseo Bajo Virgen del Puerto 3, 28005 Madrid, Spain. Tel: +34 91 335 7908; Fax: +34 91 335 7935;
E-mail: iahr@iahr.org; Web: http://www.iahr.org

Sustainable Surface Water Management: a handbook for SUDS addresses issues as diverse as flooding, water quality, amenity and biodiversity but also mitigation of, and adaptation to, global climate change, human health benefits and reduction in energy use. Chapters are included to cover issues from around the world, but they also address particular designs associated with the implementation of SUDS in tropical areas, problems with retrofitting SUDS devices, SUDS modelling, water harvesting in drought-stricken countries using SUDS and the inclusion of SUDS in the climate change strategies of such cities as Tokyo, New York and Strasbourg.



SWITZERLAND (REPORTED BY JÖRG RIECKERMANN, EAWAG)

Measuring micropollutants in wet-weather discharges with passive samplers. A first Swiss-wide assessment of micropollutants in wet-weather discharges indicated that many combined and separate sewer overflows can be critical at a local assessment level (see Mutzner et al. 2016, doi:10.1016/j.watres.2016.08.003, Institutional Repository). Data for micropollutants in wet-weather discharges is still scarce. Therefore, we investigate urban areas with information on detailed catchment characteristics (land use) and wet-weather discharge points. Since April 2016, we are surveying two sites in the urban water observatory with conventional active water sampling and passive samplers. In 2017 we plan to monitor wet-weather discharges in a larger number of urban areas with the efficient passive sampler approach. The collected monitoring data will allow us to test the proposed Switzerland-wide model, which proposes a causal relation between discharge of specific micropollutants and land use.
More information: http://www.eawag.ch/en/department/sww/projects/dimes2/
Christoph.ort@eawag.ch

Predicting the release of substances from construction materials into the aquatic environment. During rainfall, substances are leaching from construction materials and are subsequently emitted by stormwater runoff into the environment. The European Construction Products Regulation (CPR) set requirements for construction products regarding the protection of groundwater, surface water and soil. Under the Biocidal Products Regulation (BPR) and REACH similar requirements are defined for certain substances and product types, respectively. Process-based modelling is a promising tool to perform exposure and environmental risk assessments for such substances and respective application areas. However, in Europe suitable models and scenarios are lacking. The HSR Hochschule für Technik Rapperswil (University of Applied Sciences Rapperswil) developed the dynamic model COMLEAM (Construction Material Leaching Model), which predicts i) leaching of substances from vertical and horizontal material surfaces exposed to wind-driven rainfall, such as facades and roofs, as well as transport and discharge to surface waters. It integrates weather data, house geometry, and material emission functions to calculate the dynamics of water and substance flows that are related to the construction components. COMLEAM, which is implemented in Java/Angular, contributes to estimating the emissions to surface water, soil, or groundwater and enables science, authorities and industry to perform more reliable risk assessments. The tool consists of different modules (geometry, weather, emission) with sub-menus, is coupled to GIS and generates export data files for existing environmental fate models, e.g. for soil transport (PELMO, Pearl).
More information: www.hsr.ch/comleaminfo
Michael.Burkhardt@hsr.ch