UFZ-Seminar „Wasser und Umwelt“

HELMHOLTZ ZENTRUM FÜR UMWELTFORSCHUNG UFZ

March 18th, 2013, 15.00am,

Saal, Brückstr. 3a, Magdeburg

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Colorado School of Mines

Reinventing the Nation’s Urban Water Infrastructure to Increase the Sustainability of Cities

Many cities, especially in the west, southwest and southeast of the United States, face increasing water scarcity and mounting financial stress arising from climate change, population growth, ecosystem demands and deteriorating infrastructure. As an alternative to the business-as-usual approach to replacing and expanding existing infrastructure, more sustainable solutions can be implemented by embracing new technologies and management strategies that create more resilient and economically sustainable systems. With this approach, it may be possible to realize a new vision of engineered water systems for urban settings - that provide decreased reliance on centralized facilities by employing distributed treatment systems that embrace energy-neutral wastewater reclamation and nutrient recovery. In addition, managed natural systems will play an increasingly prominent role that enhance our ability to transmit, store, and purify water while simultaneously restoring urban hydrology and aquatic habitat. Thus, re-invention means rethinking all aspects of the urban water cycle, with water reuse tailored to different uses, defining the appropriate scale of decentralization, making natural systems part of urban water infrastructure, quantifying non-monetary benefits that lead to overall better outcomes, and communicating a new vision in local-scale demonstration projects. The presentation draws examples from the National Science Foundation funded Engineering Research Center for Re-inventing Urban Water Infrastructure (ReNUWIt) - a collaboration among researchers at Colorado School of Mines, University of California-Berkeley, New Mexico State University, and Stanford University.

Falls eine Videoübertragung nach Halle oder Leipzig gewünscht wird, bitte ich um eine E-Mail an nina.baumbach@ufz.de bis spätestens Freitag (15.03.), 12:00Uhr.