Desalination and Water Treatment
www.deswater.com

doi: 10.5004/dwt.2018.22342

110 (2018) 349–354
April

Characteristic and pattern of urban water cycle: theory

Huaibin Wei[a,b,*], Yimin Wang[a], Mingna Wang[c]

[a]*Xi'an University of Technology, Xi'an 714800, China, email: weihuaibin2008@126.com*
[b]*North China University of Water Resources and Electric Power, Zhengzhou 450045, China*
[c]*China Institute of Water Resources and Hydropower Research, Beijing 100038, China*

Received 7 November 2017; Accepted 4 February 2018

ABSTRACT

Urban water cycle is one of the foremost contemporary research topics in hydrological research, and it forms the foundation of urban water resources management. This study serves to provide better analysis and understanding of the changes in urban water cycle such as number of factors, complexity of processes, magnitude of impact, etc. It serves to sum up the integration of nature and anthropogenic water cycle, in the form of a bi-modal urban water cycle model. The work focuses on the difference and compatibility of scales and methodology in urban hydrological processes, in order to highlight the gaps in urban water cycle research. This includes developing a unique model to simulate the characteristics and evolution of processes in urban areas, with the intention of supporting future urban water resources management.

Keywords: Water cycle; Urban; Hydrological model; Water resources

* Corresponding author.