Desalination and Water Treatment
www.deswater.com

doi: 10.5004/dwt.2018.22540

121 (2018) 332–337
July

Numerical simulation of hydrodynamic and pollutant diffusion in coastal waters of Qinhuangdao

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Received 23 February 2018; Accepted 22 May 2018

ABSTRACT

In this study, a two-dimensional hydrodynamic modeling and pollutant transport model were firstly established. The experiments verify the feasibility of the models. Through the hydrodynamic and the pollutant diffusion model, the numerical simulation of the pollutant diffusion in Bohai Bay is simulated. The diffusion characteristics of pollutant emission were obtained. At the same time, we analyzed the present situation of shallow water quality from chemical oxygen demand, nitrite nitrogen, total phosphorus content, and heavy metal content.

Keywords: Water quality testing; Hydrodynamic; Pollutant diffusion

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Presented at the 3rd International Conference on Recent Advancements in Chemical, Environmental and Energy Engineering, 15–16 February, Chennai, India, 2018.