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## **Prediction of pollutant remediation in a heterogeneous aquifer in Israel: Reducing uncertainty by incorporating lithological, head and concentration data**

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### **1. Introduction and background**

Reliable predictions of pollutant transport in aquifers have a major role in the management and protection of the aquifer. Based on predictions we can perform risk analysis and manage production wells (e.g. *Hobbs et al.*, 1988; *Li et al.*, 2007; *Maxwell et al.*, 1998), and make decisions regarding a suitable remediation strategy for the contaminated aquifer (e.g. *Guo and Brusseau*, 2017; *Wagner and Gorelick*, 1989; *Zheng and Wang*, 2002). However, the complex processes of sediments' deposition and erosion, that generates the aquifer's geological structure, may result in a highly heterogeneous spatial distribution of hydrogeological parameters (*Huysmans and*

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