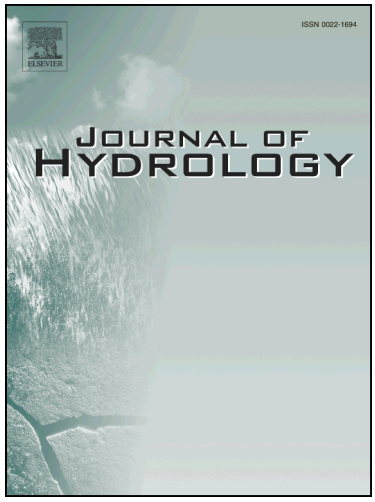

Research papers

Intelligent Performance Evaluation of Aquifer Storage and Recovery Systems in Freshwater Aquifers

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Intelligent Performance Evaluation of Aquifer Storage and Recovery Systems in Freshwater Aquifers

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Highlights

- For two considered scenarios in homogeneous aquifers, we present software for rapidly predicting the recovery effectiveness (REN) of aquifer storage and recovery (ASR) wells in fresh water aquifers.

- Scenarios assume two months of steady injection, followed by: a) up to four months of steady extraction, or b) one year of aquifer storage and then up to four months of steady extraction.

- For scenarios and physical systems having parameters within specified ranges, the software circumvents the need to prepare and run computationally intensive transport simulations.

- The software allows water managers to evaluate the possibility of achieving an acceptably high REN and the usefulness of a counting-molecules method for ASR management.

Abstract