

Amount of anomalously discharged groundwater after the 1995 Kobe earthquake in the northern part of Awaji Island, Japan.

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Amount of anomalously discharged groundwater after the 1995 Kobe earthquake is estimated as 10^8 m^3 in the northern part of Awaji Island. The discharge rates at 9 springs were observed more than 4 times from May 1995 to October 1998. The data were analyzed as follow. Firstly, the constant values of the discharge rate after the earthquake are estimated. Secondly, the amount of the anomalously discharged groundwater at each spring is calculated by using a very simple diffusional model. The hydraulic diffusivity and the discharge rate just after the earthquake are also estimated by using the model, and the mean values are $760 \text{ cm}^2/\text{s}$ and 6.7 times as much of the constant value after the earthquake, respectively.