

## **Groundwater Susceptibility Map in South Korea**

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For the assessment of groundwater pollution susceptibility due to the increasing intensification of agricultural and industrial activities, the DRASTIC map using a geographic information system (GIS) was made in southern part of the Gyeonggi Province, Korea. Because the fractured aquifers were predominantly distributed in Korea, the modified DRASTIC system with the fracture density was also applied. And in order to validate the accuracy of the techniques used for evaluating groundwater susceptibility, the systematic groundwater sampling and chemical analyses are also carried out using  $\text{NO}_3\text{-N}$  for the anthropogenic pollution potential and TOC.

The groundwater pollution potential of the study area is divided into 5 grades, with a range of very low to very high. In comparison with the common DRASTIC map, the modified DRASTIC map shows different pollution potential, which suggests the importance in characteristics of the related geological, hydrological, and geometrical properties from the study area. And groundwater pollution susceptibility evaluated based on DRASTIC system has positive relation with some of the anthropogenic chemical species.