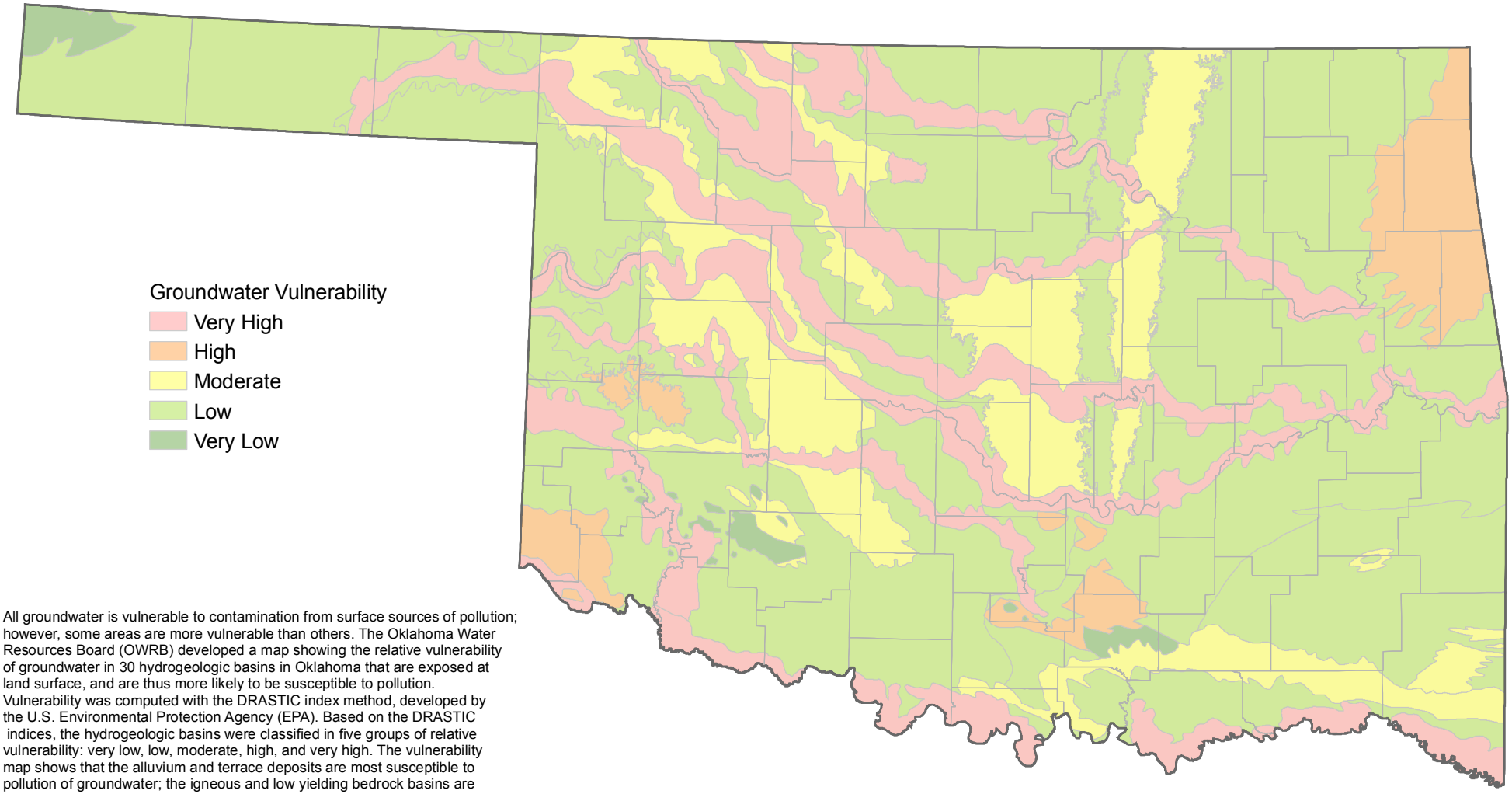
Statewide Groundwater Vulnerability Map of Oklahoma



All groundwater is vulnerable to contamination from surface sources of pollution; however, some areas are more vulnerable than others. The Oklahoma Water Resources Board (OWRB) developed a map showing the relative vulnerability of groundwater in 30 hydrogeologic basins in Oklahoma that are exposed at land surface, and are thus more likely to be susceptible to pollution. Vulnerability was computed with the DRASTIC index method, developed by the U.S. Environmental Protection Agency (EPA). Based on the DRASTIC indices, the hydrogeologic basins were classified in five groups of relative vulnerability: very low, low, moderate, high, and very high. The vulnerability map shows that the alluvium and terrace deposits are most susceptible to pollution of groundwater; the igneous and low yielding bedrock basins are the least susceptible.

The purpose of this investigation was to develop a statewide map showing the relative vulnerability of groundwater to surficial contamination that could be incorporated into Oklahoma's water quality standards.

Statewide Groundwater Vulnerability Map of Oklahoma, Technical Report 99-1
(http://www.owrb.ok.gov) (January 1999)

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State of Oklahoma
OWRB
Water Resources Board
the water agency