

Ground Water Pollution Potential of Delaware County

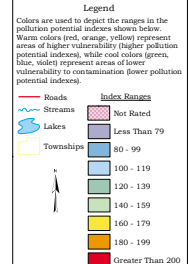
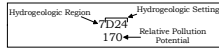
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Ground Water Pollution Potential maps are designed to evaluate the susceptibility of ground water to contamination from surface sources. These maps are based on the DRASTIC system developed for the USEPA (Aller et al., 1987). The DRASTIC system consists of two major elements: the designation of mapable units, termed hydrologic settings, and a relative rating system for determining the ground water pollution potential within a hydrologic setting. The application of DRASTIC to an area requires the recognition of a set of assumptions made in the development of the system. The evaluation of pollution potential of an area assumes that a contaminant with the mobility of water is introduced at the surface and is flushed into the ground water by precipitation. DRASTIC is not designed to replace specific on-site investigations.

In DRASTIC mapping, hydrologic settings form the basis of the system and incorporate the major hydrologic factors that affect and control ground water movement and occurrence. The relative rating system is based on seven hydrologic factors: Depth to water, net recharge, Aquifer media, Soil media, Topography, Impact of the vadose zone media, and Hydraulic Conductivity. These factors form the acronym DRASTIC. The relative rating system uses a combination of weights and ratings to produce a numerical value called the ground water pollution potential index. Higher index values indicate higher susceptibility to ground water contamination. Polygons outlined in black on the map at left are regions where the hydrologic settings and the pollution potential index are combined to create a mapable unit with specific hydrologic characteristics, which determine the region's relative vulnerability to contamination. Additional information on the DRASTIC system, hydrologic settings, ratings, and weighting factors is included in the report.

Description of Map Symbols



Black grid represents the State Plane South Coordinate System (NAD27, feet).

