New USGS Reports Describe Groundwater Vulnerability to Contamination

One in every five samples of groundwater used as a source for drinking contains at least one contaminant at a level of concern for human health, according to a new U.S. Geological Survey report.

About 115 million people—more than one-third of the Nation’s population—rely on groundwater for drinking water, and the need for high-quality drinking-water supplies is becoming more urgent as the Nation’s population grows.

USGS scientists assessed water quality in source (untreated) water from 6,600 wells in regionally extensive aquifers that supply most of the groundwater pumped for the Nation’s drinking water, irrigation, and other uses. The new USGS reports highlight how geology, hydrology, geochemistry, and chemical use affect the concentrations of individual contaminants in groundwater.

Regional summaries of where and why groundwater is vulnerable to contamination now are available for the following aquifers and aquifer systems:

- **Glacial Aquifer System (northern U.S.)**
- **Western Volcanics (northwestern U.S. and Hawaii)**
- **Southwest Basin-Fill Aquifers (southwestern U.S.)**
- **Denver Basin Aquifer System (Colorado)**
- **High Plains Aquifer System (central U.S.)**
- **Mississippi Embayment-Texas Coastal Upland Aquifer System and Mississippi River Alluvial Aquifer**
- **Aquifers of the Piedmont, Blue-Ridge and Valley and Ridge Regions (eastern U.S.)**
- **Northern Atlantic Coastal Plain Surficial Aquifer System (east coast of the U.S.)**
- **Upper Floridan Aquifer and Overlying Surficial Aquifer (southeastern U.S.)**

These reports and the associated water quality data are available online.

Additional information on the USGS National Water-Quality Assessment Program’s groundwater quality activities for the next decade is available online.