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**Quaking Bog** — A *Bog* formed of *Peat*, wholly or partially floating, so that it shakes when trodden upon. Also see *Peatland*.

**Qualitative Analysis** — (Data Analysis) The examination or analysis of a phenomenon to determine its qualitative characteristics versus its quantitative characteristics, i.e., characteristics for which precise numerical identification are not appropriate. Also see *Quantitative Analysis*.

**Quantitative Analysis** — (Data Analysis) The examination of phenomena using actual observed data with an intention to explain historical behavior and/or predict the future behavior of some phenomenon. Also see *Qualitative Analysis*.

**Quantitative Precipitation Forecast (QPF)** — A forecast of the amount of precipitation which will fall during a specific time period. These precipitation amount forecast values can then be used as inputs to hydrologic models for river forecasting purposes.

**Quart** — A measure of capacity in both liquid and dry measure equal to two pints. The U.S. liquid quart is  $\frac{1}{4}$  the gallon of 231 cubic inches; The U.S. dry quart is  $\frac{1}{32}$  the bushel of 2,150.42 cubic inches, or  $\frac{1}{8}$  peck. The British quart, adopted in 1824, equals 2 pints or  $\frac{1}{4}$  the imperial gallon, is used for both liquid and dry commodities and equals 1.0320 U.S. dry quarts or 1.2009 U.S. liquid quarts. Prior to 1824 various quarts were in use for different commodities. Also see *Gallon [Imperial]* and *Gallon [U.S.]*.

**Quarter-Flow Interval** — The shortest period of time in days (typically) during which one-quarter of the annual runoff occurs.

**Quartz** — (Geology) The most common rock-forming mineral. It is made up of silicon dioxide ( $\text{SiO}_2$ ). Quartz crystals may be glassy or opaque (milky quartz) and exist in a variety of colors including white, rose, smoky gray, and purple.

**Quartzite** — (Geology) A hard *Metamorphic Rock* made up of interlocking quartz grains that have been cemented by silica.

**Quaternary Period** — (Geology) A period consisting of approximately the last 2 million years of earth history, encompassing both the *Pleistocene* and the *Holocene* epochs.

**Quench** — (1) To slake one's thirst. (2) To cool (hot metal) by thrusting into water or other liquid.

**Quench Tank** — A water-filled tank used to cool incinerator residues or hot materials during industrial processing.

**Quicklime** — Another term for lime, or calcium oxide ( $\text{CaO}$ ), used in many water and wastewater treatment operations such as softening, coagulation, and phosphorus removal.

**Quicksand** — (1) Sand that is unstable due to the upward pressure of water. (2) Sand easily moved or readily yielding to pressure, especially a deep mass of loose sand mixed with water, very dangerous from the difficulty of extricating anything that begins sinking into it.