



Groundwater Terms & Definitions

Aquifer - A geologic formation(s) that is water bearing. A geological formation or structure that stores and/or transmits water, such as to wells and springs. Use of the term is usually restricted to those water-bearing formations capable of yielding water in sufficient quantity to constitute a usable supply for people's uses. [2]

Cubic feet per second (cfs) - A rate of the flow, in streams and rivers, for example. It is equal to a volume of water one foot high and one foot wide flowing a distance of one foot in one second. One "cfs" is equal to 7.48 gallons of water flowing each second. As an example, if your car's gas tank is 2 feet by 1 foot by 1 foot (2 cubic feet), then gas flowing at a rate of 1 cubic foot/second would fill the tank in two seconds. [2]

Discharge - Describes the processes through which water leaves a groundwater system. [1]

Evaporation - The process of liquid water becoming water vapor, including vaporization from water surfaces, land surfaces, and snow fields, but not from leaf surfaces. [2]

Evapotranspiration - The sum of evaporation and transpiration. [2]

Groundwater Budget - Provides an accounting of groundwater recharge and discharge of a groundwater system. [1]

Groundwater System - The occurrence, flow, storage, recharge, and discharge of water within the entire interconnected saturated subsurface (rocks and/or sediments) from the smallest yield portion to the highest yield portion. [3]

Perennial Stream - Streams that flow all months of most years. [4]

Permeability - Describes the ability of any fluid to flow through a solid such as rocks or sediments. [1]

Prior Appropriation Doctrine - The system for allocating water to private individuals used in most Western states. The doctrine of Prior Appropriation was in common use throughout the arid West as early settlers and miners began to develop the land. The prior appropriation doctrine is based on the concept of "First in Time, First in Right." The first person to take a quantity of water and put it to beneficial use has a higher priority of right than a subsequent user. The rights can be lost through nonuse; they can also be sold or transferred apart from the land. Contrasts with riparian water rights. [2]

Recharge - Water added to a groundwater system. For instance, rainfall that seeps into the ground. [2]

Transpiration - Process by which water that is absorbed by plants, usually through the roots, is evaporated into the atmosphere from the plant surface, such as leaf pores. [2]

References

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- [2] U.S. Geological Survey, 2018, *Dictionary of Water Terms*. U.S. Geological Survey. <https://www.usgs.gov/special-topics/water-science-school/science/dictionary-water-terms#T>
- [3] Alley, W.M., Healy, R.W., LaBaugh, J.W., and Reilly, T.E., 2002, *Flow and Storage in Groundwater Systems*: Science, v. 296, no. 5575, p. 1985-1990.
- [4] Meinzer, Oscar E., 1923, *Outline of ground-water hydrology, with definitions* Water Supply Paper 494, Washington, DC: US Geological Survey, p. 57. [doi:10.3133/wsp494](https://doi.org/10.3133/wsp494).