



Arkansas Water Primer Series: Glossary of Water-Related Terms

Acre-foot – The volume of water required to cover one acre of land (43,560 square feet) to a depth of one foot. It is equal to 325,851 gallons.

Aquifer – Layers of rock, sand or gravel that can absorb water and allow it to flow.

Best Management Practices (BMPs) – Methods that have been determined to be effective, practical means of preventing or reducing pollution from nonpoint sources.

Buffer Zone – The area of land next to a body of water where activities such as construction are restricted in order to protect the water.

Confined Aquifer – Soil or rock located below the land surface that is saturated with water. There are layers of impermeable material both above and below it, and it is under pressure so that when the aquifer is penetrated by a well, the water will rise above the top of the aquifer.

Conservation Reserve Program (CRP) – A voluntary U.S. Department of Agriculture program that takes highly erodible or environmentally sensitive cropland out of production for 10 to 15 years. Farmers receive an annual rental payment in return.

Desalination – The removal of salts from saline water to provide fresh water. This method is becoming a more popular way of providing fresh water to populations.

Doctrine of Prior Appropriation – The system for allocating water to private individuals used in most Western states. 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.

Domestic Wastewater – Wastewater derived principally from residential and commercial buildings and institutions. It may or may not contain groundwater, surface water or stormwater.

Drainage Basin – A land area where precipitation runs off into streams, rivers, lakes and reservoirs. It is a land feature that can be identified by tracing a line along the highest elevations between two areas on a map, often a ridge. A drainage basin is also referred to as a watershed.

Dredging – The removal of sediment from a channel or waterbody to produce sufficient depths for navigation or to recover water storage capacity.

Ecosystem – An organic community of plants and animals viewed within its physical environment (habitat). The ecosystem results from the interaction between soil, climate, vegetation and animal life.

Effluent – Water that flows from a sewage treatment plant after it has been treated.

Environmental Quality Incentives Program (EQIP) – A voluntary program administered by the Natural Resources Conservation Service that offers incentives for landowners to adopt management practices that protect environmental quality.

Erosion – The process in which a material is worn away by water or air. Stream bank or stream bed erosion is often increased by the presence of abrasive particles.

Evaporation – The process of liquid water becoming water vapor, including vaporization from water surfaces, land surfaces and snow fields.

Evapotranspiration – The combined loss of water to the atmosphere via the processes of evaporation and transpiration.

Flood Plain – A strip of relatively flat and normally dry land alongside a stream, river or lake that is covered by water during a flood.

Groundwater – Water that flows or seeps downward and saturates soil or rock, supplying springs and wells.

Groundwater Discharge – The fluid output from a groundwater system. Natural groundwater discharge may occur in the form of springs or seepages. Groundwater also discharges into rivers and lakes via bank seepage or by upward flow in river and lake beds.

Groundwater Recharge – The inflow of water to a groundwater reservoir from the surface. Infiltration of precipitation and its movement to the water table is one form of natural recharge.

Hydric Soil – Soil that is wet long enough for anoxic (oxygenless) conditions to develop. This soil is found in wetlands.

Hydrologic Cycle – The cycle in which water evaporates from the oceans and the land surface, is carried over the earth in atmospheric circulation as water vapor, precipitates again as rain or snow, is intercepted by trees and vegetation, provides runoff on

the land surface, infiltrates into soils, recharges groundwater, discharges into streams, and ultimately, flows out into the oceans, from which it will eventually evaporate again.

Infiltration – The flow of water from the land surface into the subsurface.

Leaching – The process by which soluble materials in the soil, such as salts, nutrients, pesticide chemicals or contaminants, are washed into a lower layer of soil or are dissolved and carried through the soil.

Maximum Contaminant Level (MCL) – The designation given by the U.S. Environmental Protection Agency to water quality standards as outlined in the Safe Drinking Water Act. The MCL is the greatest amount of a contaminant that can be present in drinking water without causing unacceptable risk to human health.

Navigable Waters – Waters subject to the ebb and flow of the tide and/or used to transport interstate or foreign commerce. A determination of navigability, once made, applies over the entire surface of the waterbody, and is not changed by later actions or events which impede or destroy navigable capacity. In Arkansas, recreational use such as fishing or canoeing may result in a waterbody being classified as navigable.

Non-Domestic Wastewater – Any wastewater that is commercial, industrial or agricultural in origin, excluding food establishments. The most common types of facilities permitted for subsurface disposal of non-domestic wastewater are car and truck washes, slaughter houses and Laundromats.

Nonpoint Source Pollution – Water pollution coming from diffused points of discharge such as runoff from parking lots, agricultural fields, lawns, home gardens, construction, mining and logging operations.

Non-Transient, Non-Community Water System – A water system which supplies water to 25 or more of the same people at least six months per year in places other than their residences. Some examples are schools, factories, office buildings and hospitals which have their own water systems.

Perched Water Table – A water table that is positioned above the normal water table for an area because of the presence of an impermeable rock layer.

Point Source Pollution – Water pollution from clearly discernible discharge points such as pipes, wells, containers, manure storage systems, boats or other watercraft.

Potable Water – Water that is suitable for drinking.

Precipitation – Any form of water such as rain, snow, hail, sleet, dew and frost.

Public Water System – Any water system which provides water to at least 25 people for at least 60 days annually.

Riparian Doctrine – The rights of an owner whose land abuts water. These rights differ from state to state and often depend on a state's classification of a waterbody. Under this doctrine, persons who own land adjacent to a stream have the right to make reasonable use of water from the stream as long as their use does not impair the rights of other riparian landowners. Riparian rights cannot be sold or transferred for use on nonriparian land.

Runoff – The movement of water across the soil surface that occurs when water collects at a rate faster than it can infiltrate the soil.

Stormwater – Water that is generated by a rainfall event. The U.S. Environmental Protection Agency estimates that at least 50 percent of the nation's water pollution is caused by stormwater runoff.

Surface Water – Water that is on the earth's surface, such as in a stream, river, lake or reservoir.

Total Maximum Daily Load (TMDL) – A calculation of the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards, and an allocation of that amount to the pollutant's sources.

Transient, Non-Community Water System – A water system which provides water in a place such as a gas station or campground where people do not

remain for long periods of time. These systems do not have to test or treat their water for contaminants which pose long-term health risks because fewer than 25 people drink the water over a long period.

Transpiration – The emission of water vapor from the leaves of plants.

Unconfined Aquifer – An aquifer whose upper water surface (water table) is at atmospheric pressure, and thus is able to rise and fall.

Wastewater – The spent or used water of a community or industry containing dissolved and suspended matter.

Watershed – The land area that drains water to a particular stream, river or lake. It is a land feature that can be identified by tracing a line along the highest elevations between two areas on a map, often a ridge. Large watersheds like the Mississippi River basin contain thousands of smaller watersheds.

Wetland – Land that is saturated with water and contains plants and animals that are adapted to living on, near or in water. Wetlands have special hydric soils and are usually located between a body of water and land.

Wetlands Reserve Program (WRP) – A voluntary incentive program administered by the Natural Resources Conservation Service that provides technical and financial assistance to eligible landowners to address wetland, wildlife habitat, soil, water and related natural resource concerns on private land in an environmentally beneficial and cost-effective manner.

Wildlife Habitat Incentives Program (WHIP) – A voluntary program administered by the Natural Resources Conservation Service that encourages the creation of high-quality wildlife habitats that support wildlife populations of national, state, tribal and local significance.

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