

WRDC Environmental Workgroup; 2/8/2011 (revised)
Terms and Definitions

Base flow = The part of stream flow originating from groundwater discharge and that sustains year-round flow. Several studies are available in the scientific literature that estimate base flow for a subset of Arizona's rivers. Those studies estimated base flow values very close to median annual flow.

Effluent: Water that has been collected in a sanitary sewer for subsequent treatment in a facility that is regulated as a sewage system, disposal plant or wastewater treatment facility. Such water remains effluent until it acquires the characteristics of groundwater or surface water.

Effluent dependent water: Surface waters that would generally be ephemeral, except for the discharge of treated effluent.

Environmental Allocation = amount of water allocated for an environmental purpose through a settlement, agreement, permit, decree, or other legal or administrative process.

Floodflow = stream discharge during a relatively high flow measured by either gage height or discharge quantity

Groundwater basin = An area which may be designated to enclose a relatively hydrologically distinct body or related bodies of groundwater, and described horizontally by surface description.

Groundwater underflow = Subsurface water that flows out of a basin into the next down-gradient basin, including both shallow groundwater in the Holocene alluvium and water contained in Tertiary basin fill. Groundwater underflow estimates are available for some groundwater basins but not all, and will not be included in estimates of annual flow for rivers described in the WRDC's work.

Instream flow right: A non-diversionary surface water right for recreation and wildlife purposes, including fish.

Maximum storage capacity: Total storage space in a reservoir below the maximum attainable water surface elevation, including any surcharge (flood control) storage.

Perennial stream: A stream or part of a stream with surface flow throughout the year, drying only during periods of drought.

Reservoir Storage = the maximum storage capacity in a reservoir in acre-feet or for those reservoirs without a volumetric capacity, the maximum surface area of the reservoir.

Large Reservoir = water bodies with a maximum storage capacity of 500 acre-feet or greater or a maximum surface area of 50 acres or greater

Small Reservoir = water bodies with a capacity of greater than 15 but less than 500 acre-feet or a maximum surface area of between 5 and 50 acres

Riparian evapotranspiration = Riparian evapotranspiration (ET) refers to the combined amount of water evaporated from riparian soil or open water surfaces, or transpired by riparian vegetation.

Spring and Effluent Discharge = flow discharge from springs and wastewater discharge to a watercourse. Spring flow is from the Arizona Water Atlas and is generally the most recent discharge measurement identified at a spring site.

Major Spring = a spring with a discharge rate of 10 gallons per minute (gpm) or greater

Minor Spring = a spring with a discharge rate between 1 and 10 gpm.

Stockpond = an impoundment with a capacity of less than 15 acre-feet that stores appropriable water and that is for the sole purpose of watering livestock and wildlife.

Total flow supporting current water-dependent natural resources = the sum of total annual base flow, groundwater underflow, and riparian ET. Note that estimation of underflow is typically done through use of a basin-wide groundwater model, so quantification is not available for most of the basins in the state.