

Conversion of Water Measurements

from Oregon Water Resources Department

Water measurements are generally described using one of three terms.

Generally, when referring to a rate to be diverted, the terms used are cubic feet per second (cfs) or gallons per minute (gpm). When discussing volumes of water, such as amount applied to land, reservoir storage capacity, or yearly consumption, the term used is acre-feet (af).

Rates of Flow

One (1) cubic foot per second (cfs) is a rate of water flow which will supply one cubic foot of water in one second and is equivalent to flow rates of:

7.48 gallons per second

448.8 gallons per minute (gpm)

646,272 gallons per day

1.98 acre-feet per day

Volume Measurement

One (1) acre-foot is the volume of water which will cover one acre to a depth of one foot and is equal to:

43,560 cubic feet

325,851 gallons

For informational purposes:

27,154 gallons of water applied per acre equals one-acre inch

At 8.5 gpm, application for 24 hours on one acre equals $\frac{1}{2}$ inch of water