

## HANDY WATER EQUIVALENTS

- A. Second-Foot or CFS expresses a rate of flow of water equal to one cubic foot each second. 1 CFS is equivalent to the following:

7.48 gallons per second  
449 gallons per minute  
646,360 gallons per day  
1.98 acre-feet per day  
40 standard (statute) miner's inches.<sup>1/</sup>

- B. 1 acre foot expresses a definite volume of water which will cover one acre to a depth of one foot. It is equivalent to the following:

43, 560 cubic feet  
325, 851 gallons

Note: It has been stated that an acre-foot would supply water for a family of 5 for 1 year.

- C. Other water equivalents in terms of gallons are:

1,000 gallons per minute (gpm) = 2.23 CFS  
1,000 gpm = 4.42 ac-ft/day  
1 million gallons = 3.07 ac-ft  
1 million gallons per day (mgd) = 1.55 CFS

Note: One cubic foot per second, flowing for 1 day, will yield roughly 2 acre-feet. An annual runoff of 1 million acre-feet will give an average flow of 893 mgd.

### General Climatic area and Rainfall:

Desert -- less than ten inches  
Semiarid -- 10-20  
Subhumid -- 20-30  
Humid -- above 30 inches

---

<sup>1/</sup>The miner's inch referred to in the above table is a unit of measurement which was used in the early days as the label indicates. It is a unit which measures the flow of water and was determined by the area of the rectangular orifice in a box or a flume and by the pressure which may vary because of the level of the water above the orifice. The miner's inch is not uniform among the states; in California it has been standardized as the equivalence of one and on-half cubic feet of water per minute. Today the units of measurement are in terms of cubic foot per second, gallon, and acre-foot.