

# WATER TERMINOLOGY

## Water Measure

1 Acre Foot =

- Volume of water to cover one acre (208' x 208') one foot in depth
- 43,560 cubic feet
- 325,851 gallons
- 0.504 cubic feet per second for 24 hours

CFS or Cubic Feet Per Second =

- one cubic foot of water passing a given point every second
- 1.9835 acre feet per day
- 448.83 gallons per minute
- 26,930 gallons per hour
- 646,317 gallons per day
- 7.48 gallons per second

## Power Measure

1 Horsepower =

- 1 CFS falling 8.8 feet

1 Kilowatt =

- 1 CFS falling 11.8 feet
- 1.34 horsepower

Runoff at 1 inch per day =

- 0.042 CFS per acre
- 18.857 gallons per minute per acre
- 26,889 CFS per square mile

## Ground Water

Water found in porous beds or channels below the surface of the earth that is tapped by wells or springs.

- Water table - The area occupied by ground water.
- Head - Pressure due to difference in elevation.

## Water Rights

- A. Appropriation (used in Oregon and 17 western states) - A person has a right to use water only if he has a permit from the State. In case of conflict the oldest permit that is effective receives the water rights.
- B. Riparian (used in eastern 13 states) - Based on the idea that a person adjoining a water supply has a right to have or use his share of it any time.

## Weir

A simple device used to measure the flow, by depth, of water going through an opening.

## Duty of Water

The quantity of water required to irrigate a given area of land. The amount of water allowed has been settled judicially in much of Oregon. This amount varies from 1/40 to 1/80 of a cubic foot per second per acre.