

Water Use Numbers Background  
February 15, 2007

## Ballpark Numbers:

- Per capita daily usage = 130 gallons/person-day
- Residents per household = 2.35 persons/household
- $\Rightarrow$  Household Daily Usage  $\approx$  300 gallons/household-day
- times 365 days/year

$\approx$  111,500 gallons/household-year

$\approx$  50,000 gallons/person-year

$\approx$  21 persons/MG

$\approx$  9 households/MG

# Ballpark Irrigation Numbers

- Instantaneous Flow = 1 inch/acre

## Science and Technology Dictionary



[Library](#) > [Science](#) > [Science and Technology Dictionary](#)

### miner's inch ('mɪn·ərz 'ɪnʃ)

(*mining engineering*) The quantity of water that will escape from an aperture 1 inch (2.54 centimeter) square through a 2-inch-thick (5.08-centimeter) plank, with a steady flow of water standing 6 inches (15.24 centimeters) above the top of the escape aperture, the quantity so discharged amounting to 2274 cubic feet (64.39 cubic meters) in 24 hours.

## Law Dictionary



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### Miner's Inch

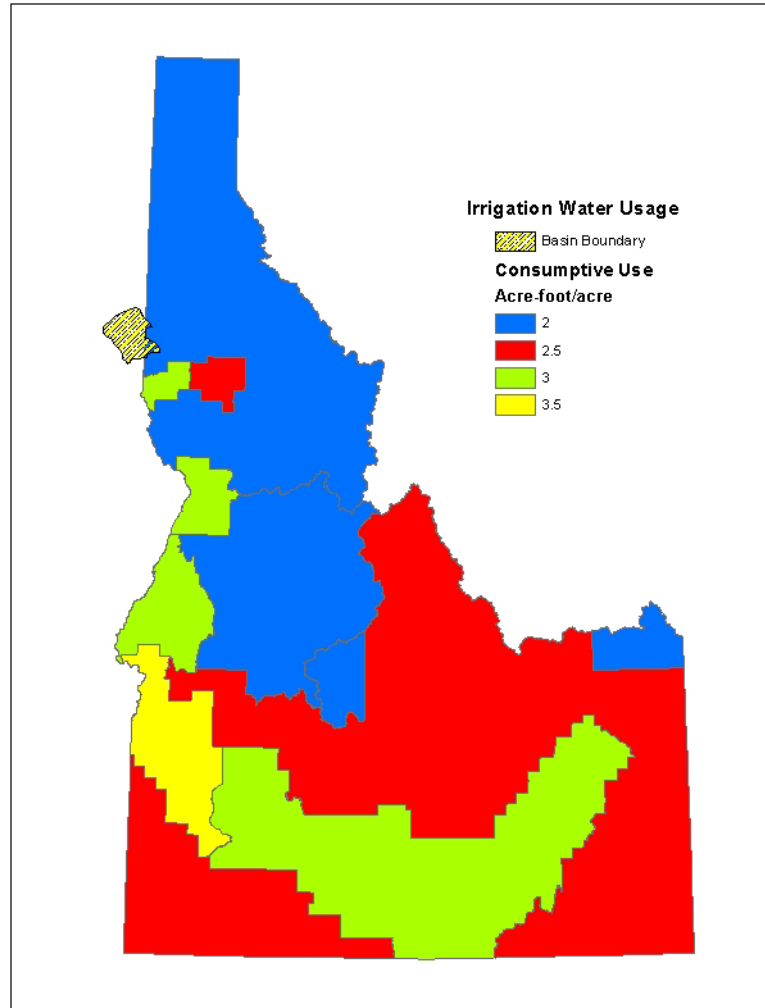
Unit of measurement involved in water rights of the amount of water passing through a standard opening under a prescribed pressure. Different states have different rates specified by statute (e.g., 1 miner's inch = .02 cu. Ft. Per sec. In Idaho and .025 cu. Ft. Per sec. In Arizona). Clark, *Waters and Water Rights* §2.3 (3d ed. 1988).

1 inch/acre  $\approx$  9 gpm  $\approx$  13,000 gpd  $\approx$  4.7 MG/yr  $\approx$  14.5 acre-ft/yr

**Instantaneous Flow  $\neq$  Annual Volume**

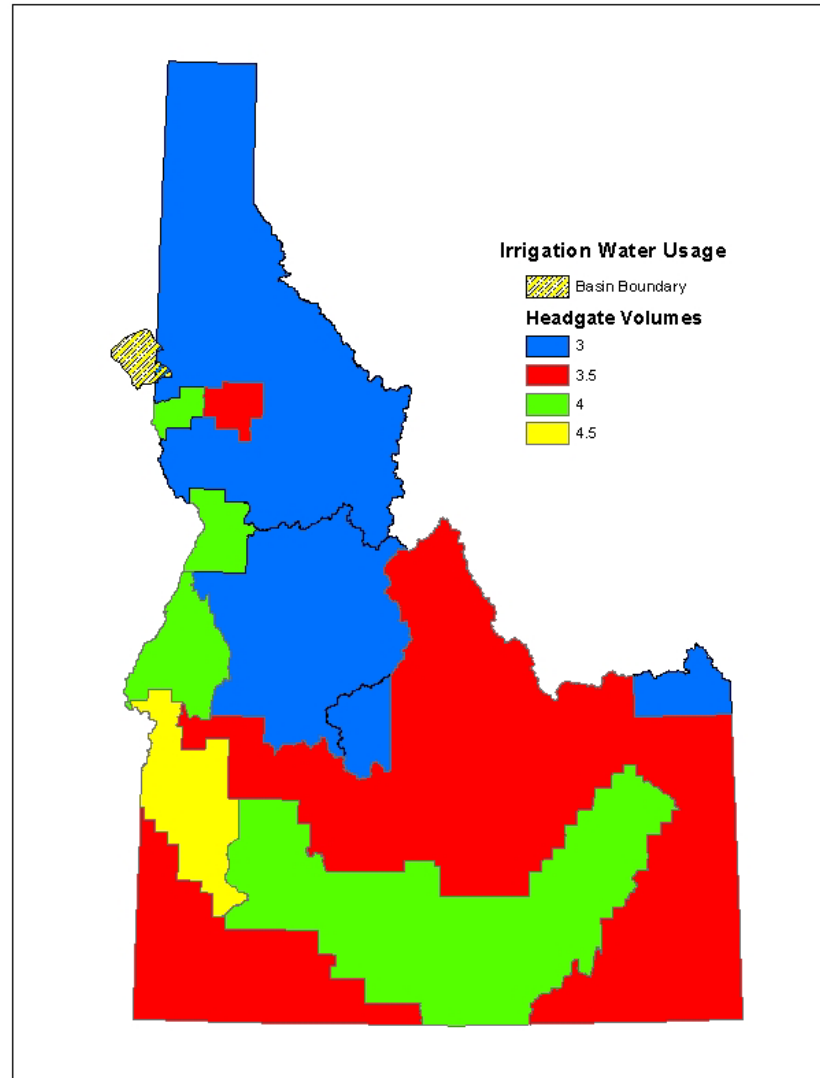
# Ballpark Irrigation Numbers

- Annual Consumptive Volume  $\approx$  2 acre-foot/acre



# Ballpark Irrigation Numbers

- Annual “Diversion” Volume  $\approx$  3 acre-foot/acre



Some Examples: (see caveats on final page)



Current Moscow Wal Mart Water Use  $\approx 3.5$  MG/yr

Annual Supercenter Water Use Range 2.98 – 7.88 MG/yr

Estimate Use at 6 MG/yr  $\approx 18$  acre-ft/yr

6 MG/yr  $\approx 54$  households

## Some Examples (cont): (see caveats on final page)



Annual Water Use (Project Description)  $\approx$  120 acre-ft/yr  
120 acre-ft/yr  $\approx$  39 MG/yr  
39 MG/yr  $\approx$  350 households

## Some Examples (cont): (see caveats on final page)



Annual Water Use (2001-2004 avg)  $\approx$  10.6 MG/yr  
Current Irrigated Acreage  $\approx$  20 acre  $\approx$  1.6 acre-ft/acre  
10.6 MG/yr  $\approx$  95 households



## Some Examples (cont): (see caveats on final page)



Current Facility  $\approx$  92 acre, New Facility  $\approx$  315 acre  
Estimated Incremental Use  $\approx$  50% over existing  
Applying Cemetery Use (1.6 Acre-ft/acre)  $\approx$  75 acre-ft/yr  
75 acre-ft/yr  $\approx$  24.4 MG/yr  $\approx$  218 households

## Some Examples (cont):

- Total Annual Water Use for four examples  $\approx$  80 MG/yr
- 2006 Major Entity Pumping Total  $\approx$  2,477 MG
- Examples as Percentage of Pumping Total  $\approx$  3.2%

## Caveats:

- Not all of the examples necessarily represent additional withdrawals from the aquifer system(s)
- Some of the examples entail shifts between surface and shallow, or shallow and deep ground water withdrawals
- **NUMBERS PRESENTED ARE ESTIMATES ONLY!**