Water Use Numbers Background
February 15, 2007
Ballpark Numbers:
• Per capita daily usage = 130 gallons/person-day
• Residents per household = 2.35 persons/household
• ⇒ Household Daily Usage ≈ 300 gallons/household-day
• times 365 days/year

≈ 111,500 gallons/household-year

≈ 50,000 gallons/person-year

≈ 21 persons/MG

≈ 9 households/MG
Ballpark Irrigation Numbers

- Instantaneous Flow = 1 inch/acre

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

Instantaneous Flow \neq \text{Annual Volume}
Ballpark Irrigation Numbers

- Annual Consumptive Volume ≈ 2 acre-foot/acre
Ballpark Irrigation Numbers
• Annual “Diversion” Volume ≈ 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) ≈ 120 acre-ft/yr
120 acre-ft/yr ≈ 39 MG/yr
39 MG/yr ≈ 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!**