



Water Resources Research Center

College of Agriculture and Life Sciences, The University of Arizona

Privatization versus Municipalization of Water Provision in Arizona: Preliminary Results

Role of Private Enterprise in Sustaining Arizona's Water Supplies Panel
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Data Qualifier

ADEQ

- Drinking water data is based on individual system ID and system names.
- Owner information was used to subtotal systems by company.
- ADEQ uses size definition for regulation purposes >10,000 pop served for water systems.
- Compliance data was based on 2 sources: the annual Water Quality Enforcement Report A.R.S. § 49-105 for 2000, 2001, 2002 which includes all types of providers and both monitoring and maximum contaminant level (mcl) violations.

ACC

- Used 2002 list of companies – 306 regulated by ACC but only 269 reported water deliveries, to identify ACC regulated utilities.
- Also used a 31 page alphabetical historical listing of all utilities ever regulated by ACC

Delivery of Drinking Water in Arizona, 2002-03: Type, Number and Population Served

Source: ADEQ and ACC data

| Type of Company | Number of Companies* | % | Population Served** | % | Average Population Served |
|-----------------|-------------------------|-----|------------------------|-----|---------------------------------|
| ACC Regulated | 269 | 20% | 766,000 | 15% | 2,840 |
| Public/Other | 1068 | 80% | 4,291,000 | 85% | 4,018 |
| Total | 1337 | | 5,057,000 | | 3,782 |

*Active companies with reported deliveries

** Based on company reports to ADEQ

Delivery of Drinking Water in Arizona, 2002-03: Number of Companies by Size

Source: ADEQ and ACC data

| Type of Company | Number of Companies | | Number of Companies Serving >10,000 | | Number of Companies Serving < 10,000 | |
|-----------------|---------------------|-----|-------------------------------------|--------------|--------------------------------------|---------------|
| | Number of Companies | % | Number of Companies | % | Number of Companies | % |
| ACC Regulated | 269 | 20% | 12 | 4% | 257 | 96% |
| Public/Other | 1068 | 80% | 35 | 3% | 1033 | 97% |
| Total | 1337 | | 47 | 3.50% | 1290 | 96.50% |

Delivery of Drinking Water in Arizona, 2002-03: Population Served by Size

Source: ADEQ and ACC data

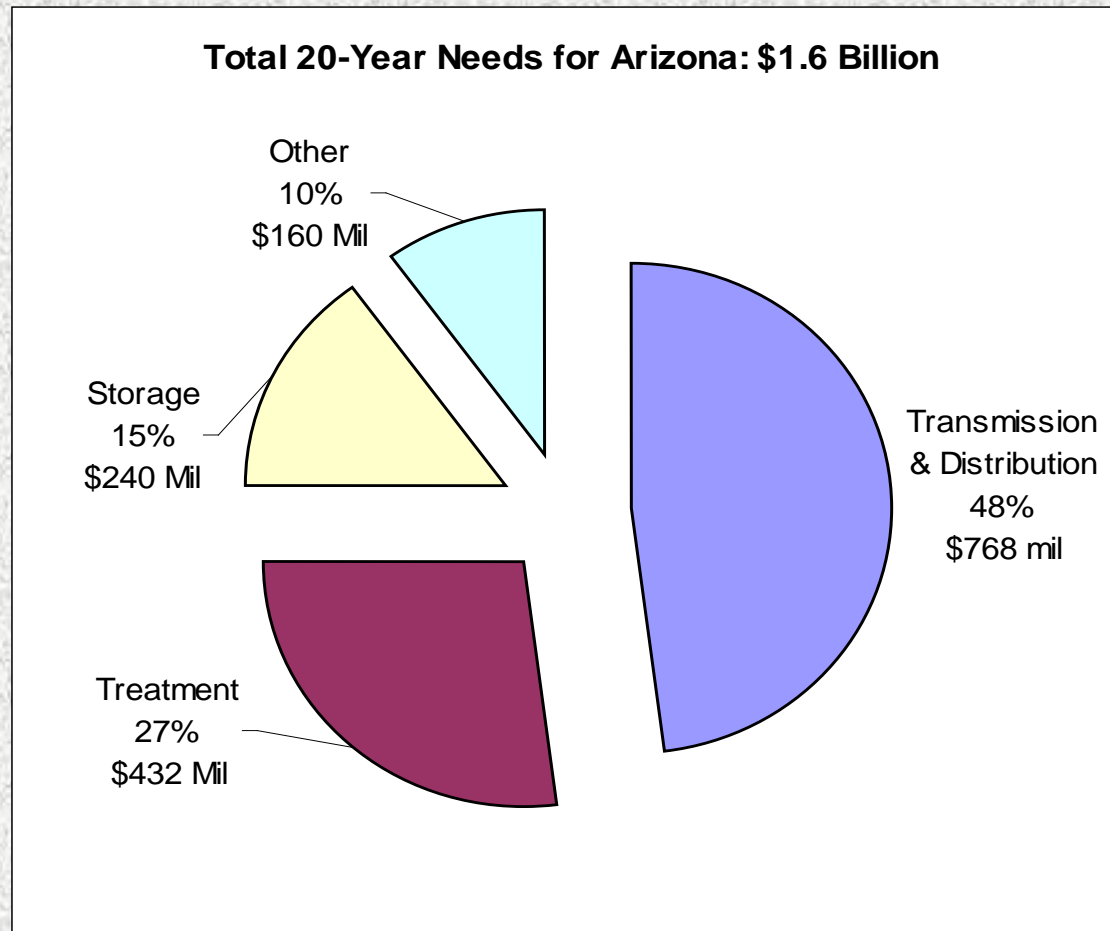
| Type of Company | Population Served | | Companies Serving > 10,000 | | Companies Serving < 10,000 | |
|-----------------|-------------------|-----|----------------------------|-----|----------------------------|-----|
| | Population Served | % | Population Served | % | Population Served | % |
| ACC Regulated | 766,000 | 15% | 502,779 | 66% | 263,221 | 34% |
| Public/Other | 4,291,000 | 85% | 3,824,609 | 89% | 466,391 | 11% |
| Total | 5,057,000 | | 4,327,388 | 86% | 729,612 | 14% |

Top 20 Municipal Water Suppliers

| Water Providers Name | Average Population |
|----------------------------|--------------------|
| Phoenix Water Service Dept | 1,200,000 |
| Tucson Water Dept-WQ Admin | 675,048 |
| City of Mesa | 350,000 |
| City of Chandler | 180,000 |
| City of Scottsdale | 180,000 |
| Glendale Munic Water Co | 180,000 |
| Arizona American Water Co | 179,179 |
| Arizona Water Co | 177,722 |
| City of Tempe | 160,000 |
| City of Yuma | 103,264 |
| Town of Gilbert | 100,000 |
| City of Peoria | 86,000 |
| City of Flagstaff | 53,000 |
| Metropolitan DWID | 47,617 |
| Lake Havasu City | 43,000 |
| City of Prescott | 40,500 |
| Oro Valley Water Utility | 33,653 |

Overall monetary needs for the state of Arizona over twenty years for water

Source: EPA 1999 Drinking Water Infrastructure Needs Survey



Changes in Structure – Tucson AMA 1985 to present

Summary:

- evidence of consolidation between 1985 and 2001
- 11% decrease in the number of providers, 34% increase in population in the AMA.
- average volume in acre-feet delivered per provider has increased
- trend is toward public ownership

Changes in Structure – Tucson AMA 1985 to present

To the present:

- Large Providers (>250AF)
- Six large ACC regulated providers were acquired by public/other providers
- Five increased in size from small to large: 4 were ACC: 1 public/other
- Small Providers:
- Eight new service areas - all but one ACC
- Six small ACC regulated companies taken over by large ACC regulated companies
- Four small ACC regulated companies taken over by public providers
- Two small non-ACC regulated providers acquired by public providers
- Eight small non-ACC regulated providers inactivated

Reasons Given for Change to Public

- need for additional financial resources to upgrade infrastructure
- access to funds to comply with changing environmental regulation – e.g. Arsenic
- low to no profits
- low interest loans from WIFA

Change to DWID

Four new Domestic Water Improvement Districts formed in the last ten years:

- Metropolitan DWID
- Marana DWID
- Green Valley DWID
- Mt. Lemmon DWID (Recently Approved)

- Avra Water Coop. has considered a DWID but, for the time being, process is on hold

Reasons given for forming DWID:

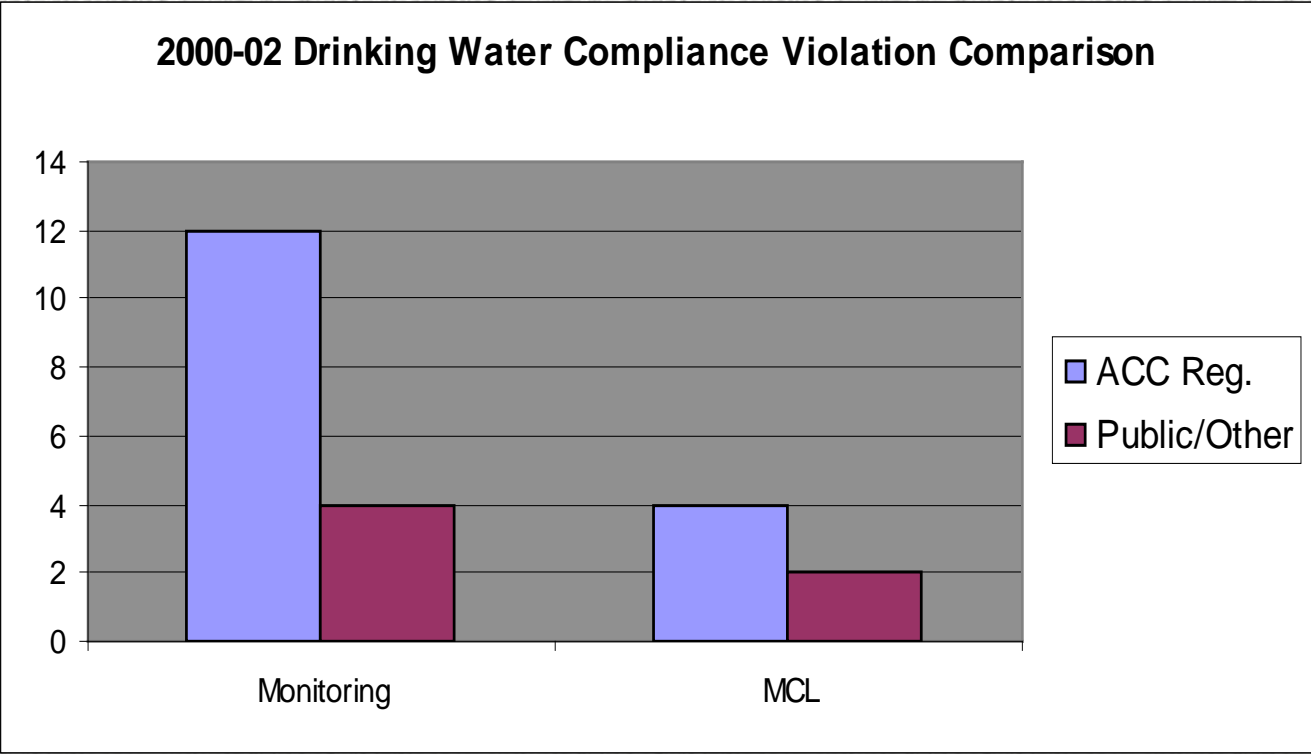
- not under ACC control, costly to adjust rates under ACC
- lower rates
- mainline extensions agreements are easier to implement
- financial resources more accessible
- public ownership option available to unincorporated areas

Drinking Water Quality Violations 2000-02 for Water Companies by Type

- A maximum contaminant level (mcl) violation constitutes any testing of water found to exceed Federal, State, or Local laws concerning legal and safe content found within drinking water provided to the public
- A monitoring violation constitutes any measured lack of reporting and monitoring of acceptable water levels and timely reporting of any and all information relevant to such reports. Monitoring and reporting regulations vary based on nature of water provider

2000-02 Violations for Monitoring and MCL Violations

source: ADEQ Water Quality Enforcement Report



Public and Private Development of Underground Storage Facilities

| Phoenix AMA | | |
|---------------------------------------|--|----------------|
| Company | | CAP |
| Del Webb Grand | | 4,000 |
| West Maricopa Combine Inc | | 25,000 |
| City of Mesa (Red Mountain) | | 2,000 |
| Salt River Project | | 200,000 |
| CAWCD (Agua Fria) | | 100,000 |
| City of Scottsdale (West World) | | 1,000 |
| City of Scottsdale (Gainey Ranch) | | 650 |
| City of Scottsdale (North Scottsdale) | | 3,642 |
| CAWCD (Hieroglyphic Mtns.) | | 35,000 |
| | | 371,292 |
| Outside Phoenix AMA | | |
| Company | | CAP |
| Vidler Water Storage Company | | 100,000 |
| Arizona Public Service | | 5,000 |
| Vicksburg Farms | | 10,000 |
| SR260/ADOT | | 150 |
| | | 115,150 |
| Tucson AMA | | |
| Company | | CAP |
| CAWCD (Avra Valley Recharge Project) | | 11,000 |
| CAWCD/Pima Mine Road | | 30,000 |
| City of Tucson/Tucson Water (CAVSARP) | | 60,000 |
| CAWCD (LSCRIP) | | 30,000 |
| | | 131,000 |

Tucson AMA Storage Credit Balances by Storer, 2001

| Type | Storer | Acre-Feet |
|--------------|------------------------------|---------------|
| Private | Spanish Trail WC | 31,428 |
| | Fidelity, Tr #10773 | 6,838 |
| | Community WC of Green Valley | 1,429 |
| | Robson Communities, Inc | 947 |
| | Vail WC | 1,459 |
| | Green Valley WC | 949 |
| | | 40,642 |
| Public | AWBA | 113,512 |
| | Tucson Water | 94,061 |
| | MDWID | 15,234 |
| | Oro Valley | 9,374 |
| | USBR | 3,567 |
| | Marana | 3,414 |
| | ASLD | 2,033 |
| | CAWCD | 1,805 |
| | 243,001 | |
| Source: ADWR | | |